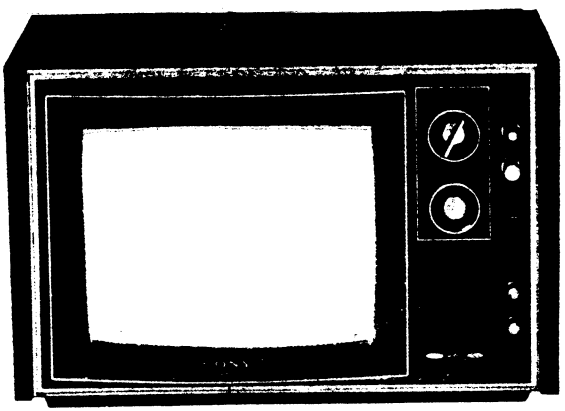
KV-1300E

Chassis No.	Serial No.
SCC-22A-A	Up to 25,000
SCC-22A-B	
SCC-22A-C	25,001 and later

This manual contains the Supplement No. 1.



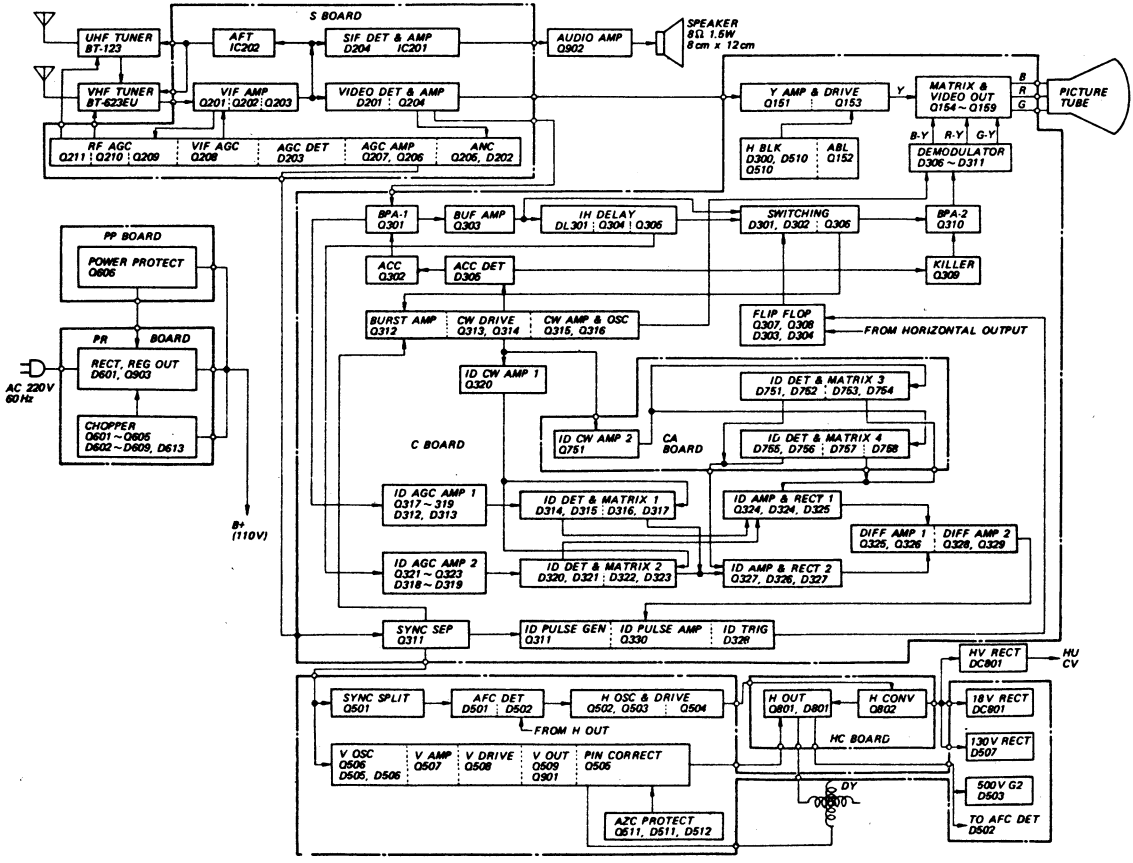
TRINITRON® COLOUR TV

SPECIFICATIONS

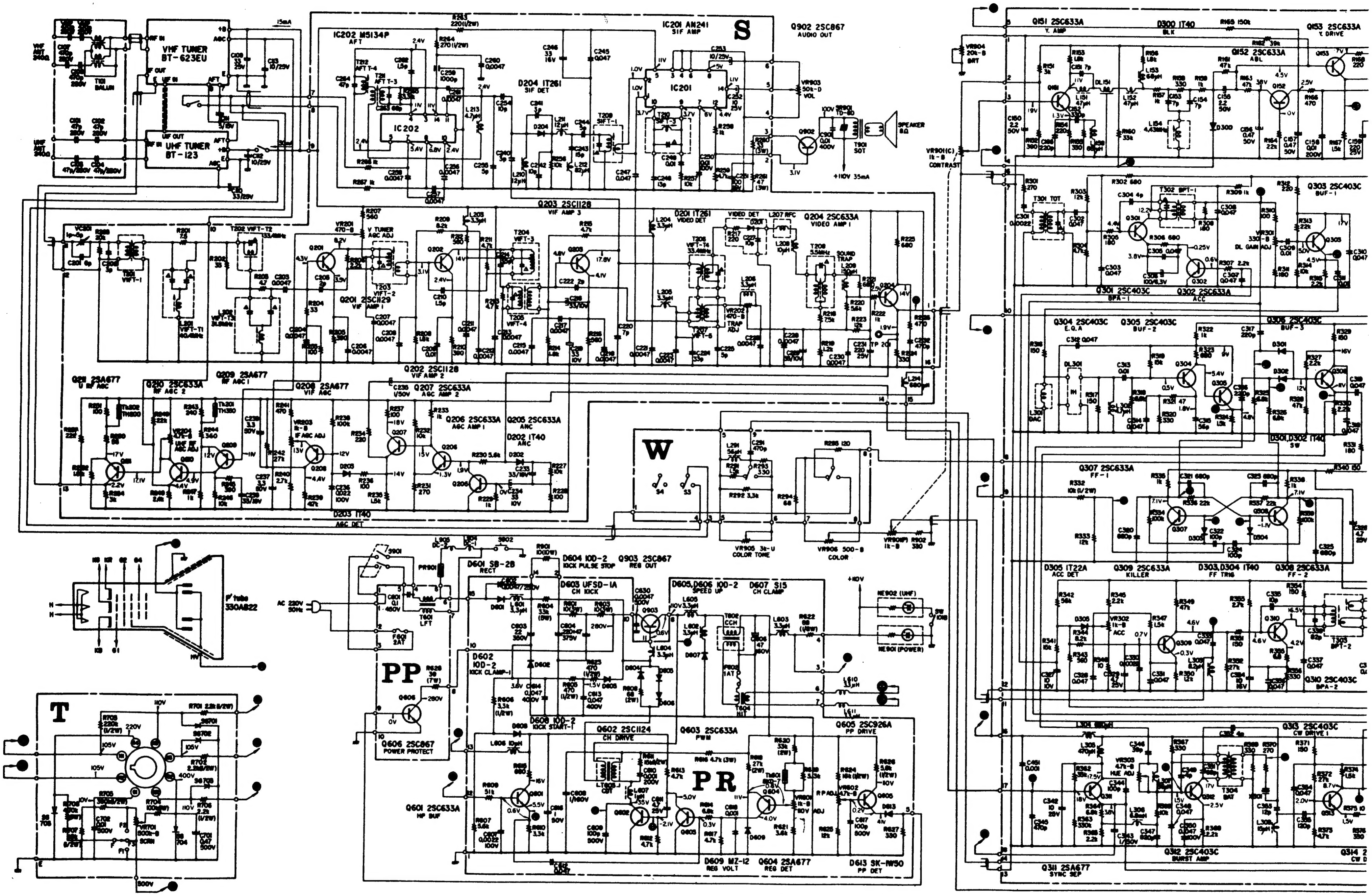
TV-signal standards:	CCIR system B and G
Picture tube:	13" 90° deflection TRINITRON system (330 AB22)
Semiconductors:	79 transistors, 68 diodes, 2 ICs, 3 thermistors, 2 varistors and 1 posistor
Channel coverage:	VHF; ch. E2～E12 UHF; ch. E21～E68
Aerial system:	240-ohm aerial terminal type
IF circuit:	3 stages with 1 double tuned and 3 single tuned elements
Intermediate frequency:	Picture i-f carrier; 38.9 MHz Sound i-f carrier; 33.4 MHz
Video system:	Red, green and blue cathode drive system
Sound system:	5.5 MHz intercarrier system Power output; 1.2 watts (at 10% harmonic distortion) Speaker; 8 x 12 cm, 8-ohm voice coil
Convergence correction system:	Horizontal; electrostatic deflection system Vertical; magnetism correction system of magnet
Power requirements:	AC 220 V 50 Hz
Power consumption:	78 watts
Anode voltage:	20 kV at zero beam current
Automatic controls:	ACC (automatic color control) ACK (automatic color killer) ADG (automatic degaussing) ABL (automatic brightness limiter) ANC (automatic noise canceller) AFC (automatic frequency control) AFT (automatic fine tuning) AGC (automatic gain control) AVR (automatic voltage regulator) AZC (automatic zooming control)
Dimensions:	474 mm(W) x 318 mm(H) x 394 mm(D)
Weight:	14.1 kg
Accessories:	Polishing cloth Instruction manual etc.

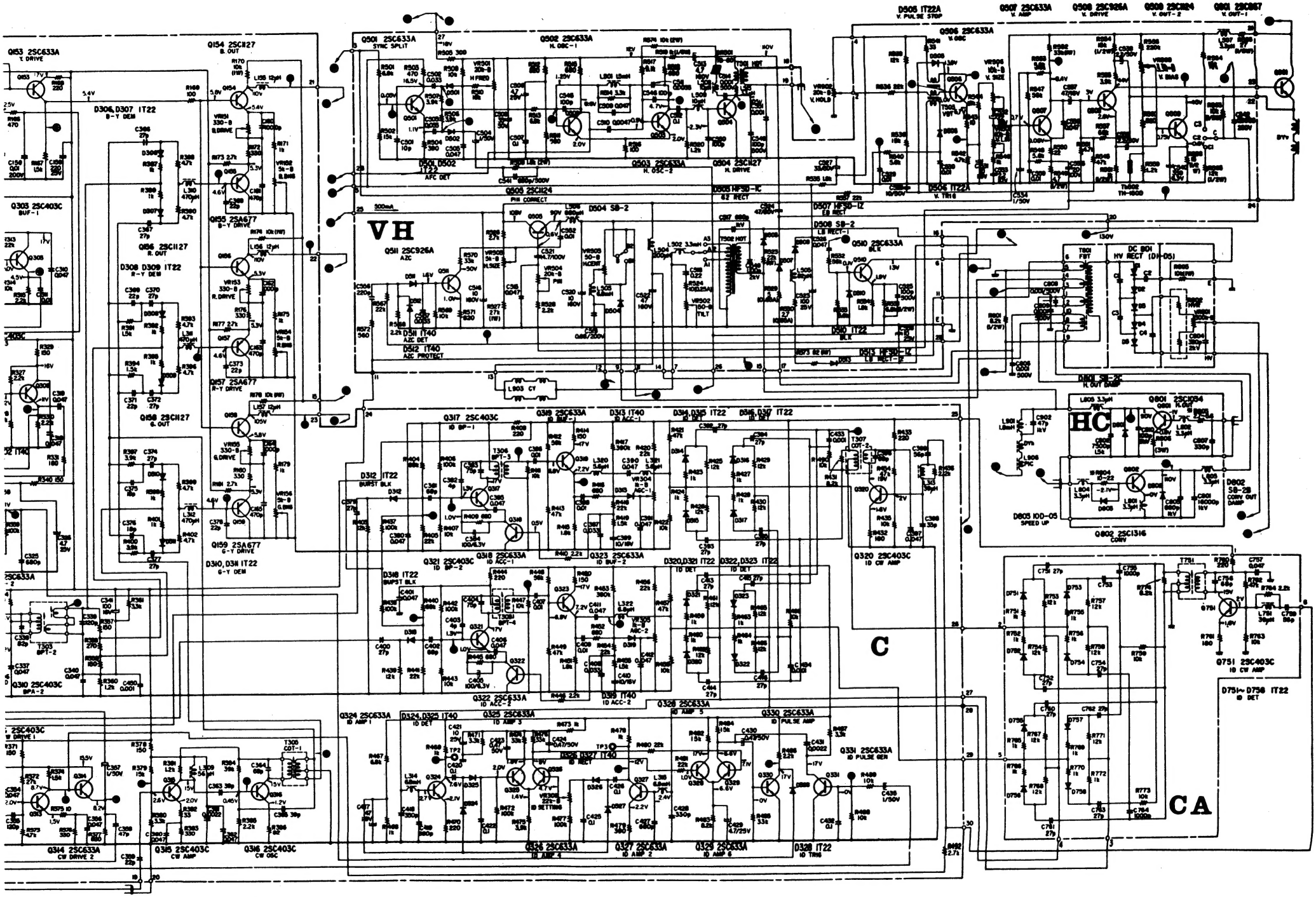
OUTLINE

BLOCK DIAGRAM



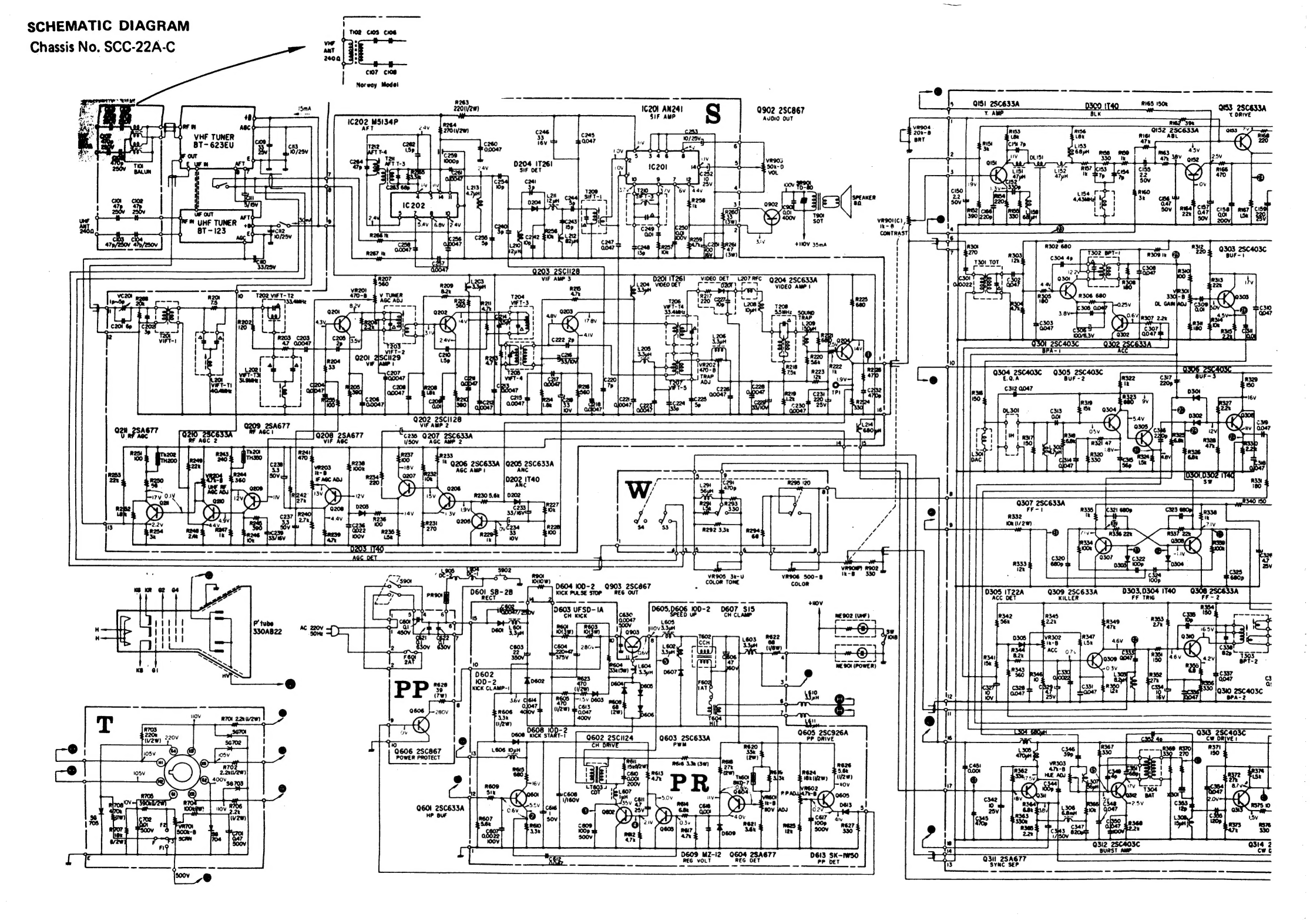
SCHEMATIC DIAGRAM Chassis No. SCC-22A-A, SCC-22A-B

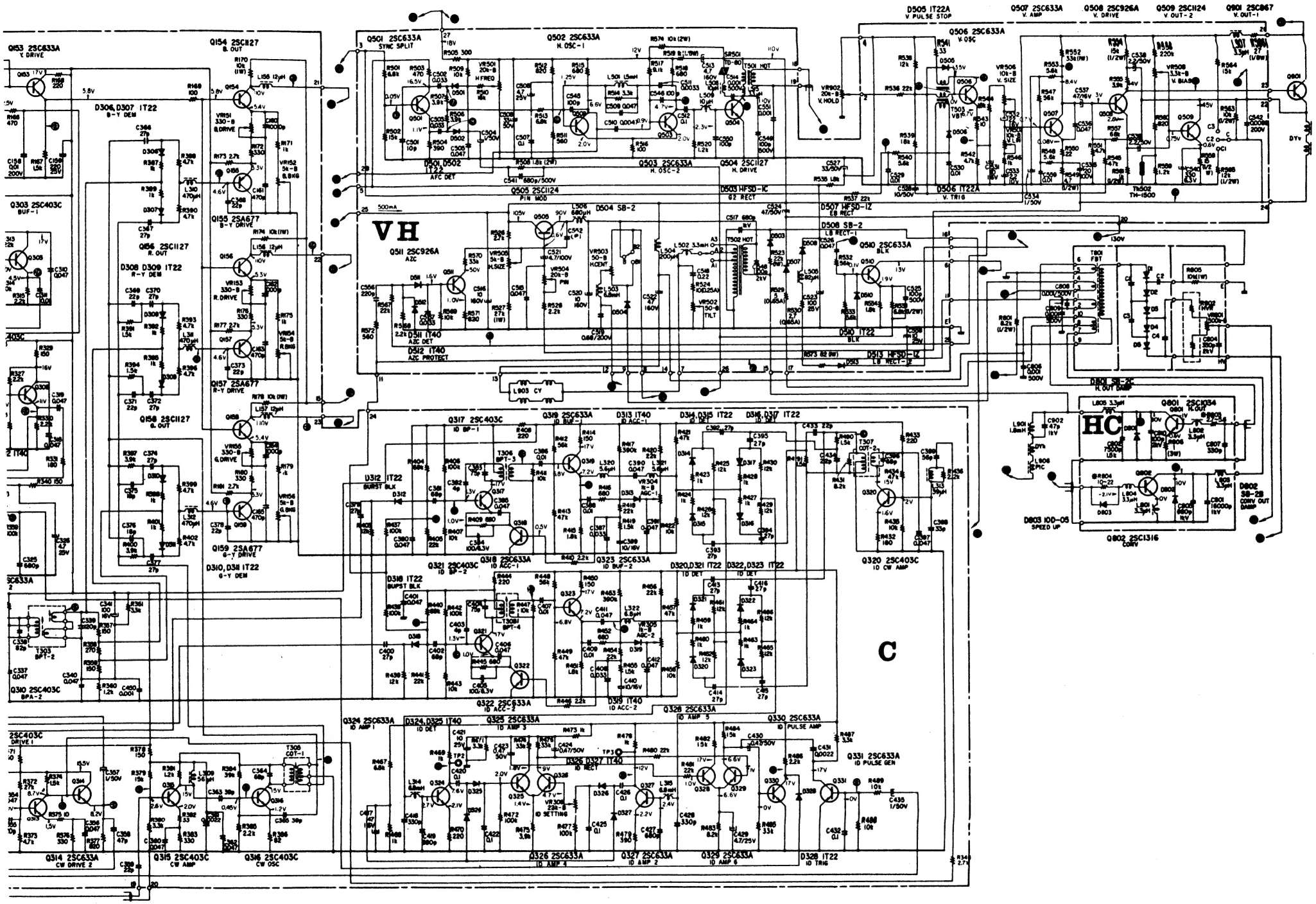


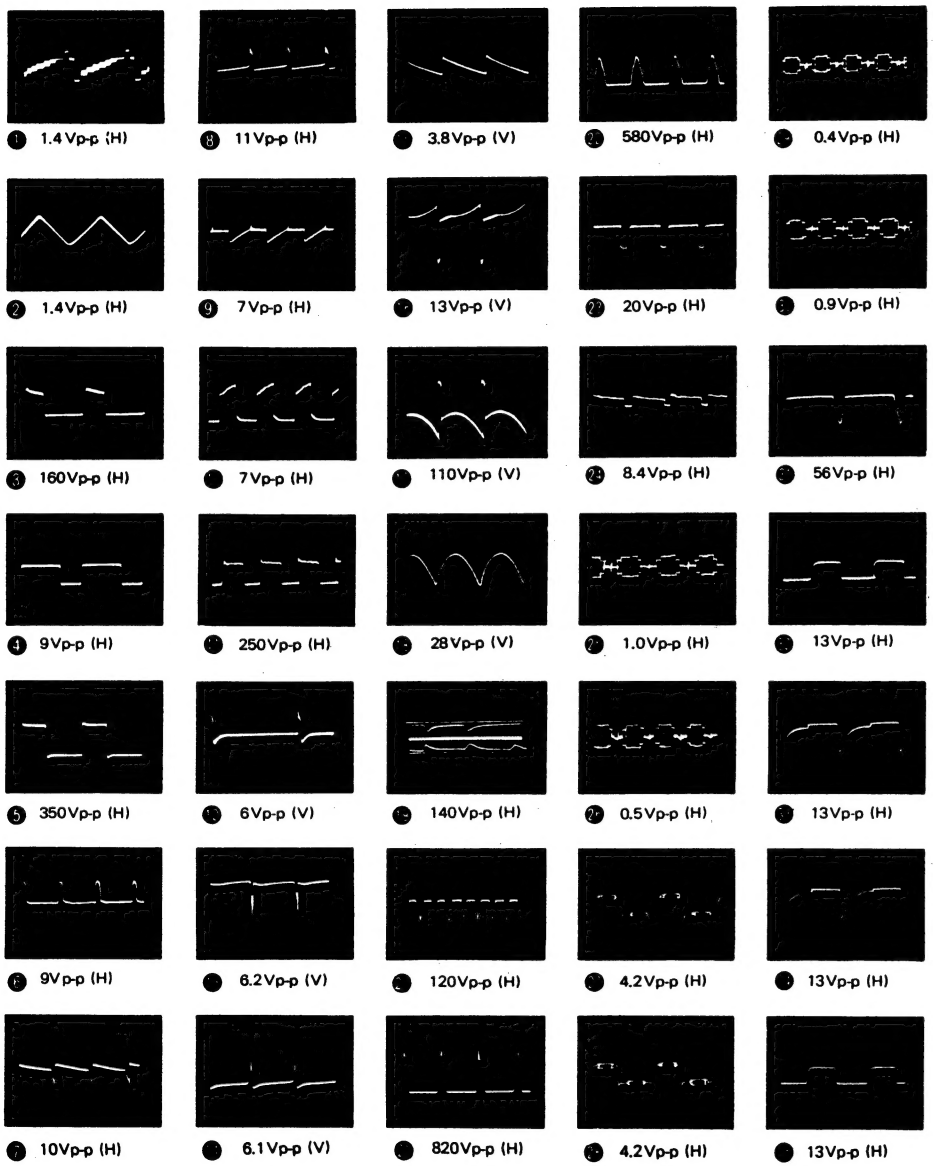

VH
HC
C
CA

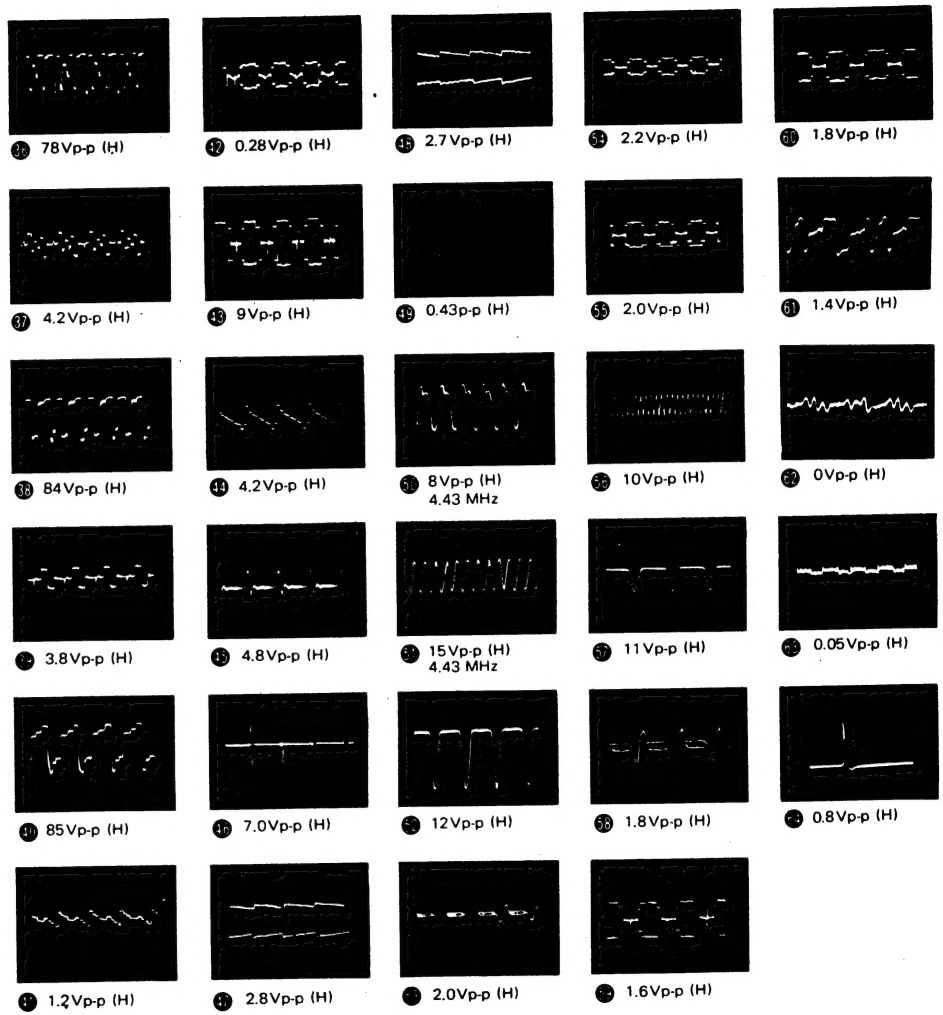
SCHEMATIC DIAGRAM

Chassis No. SCC-22A-C

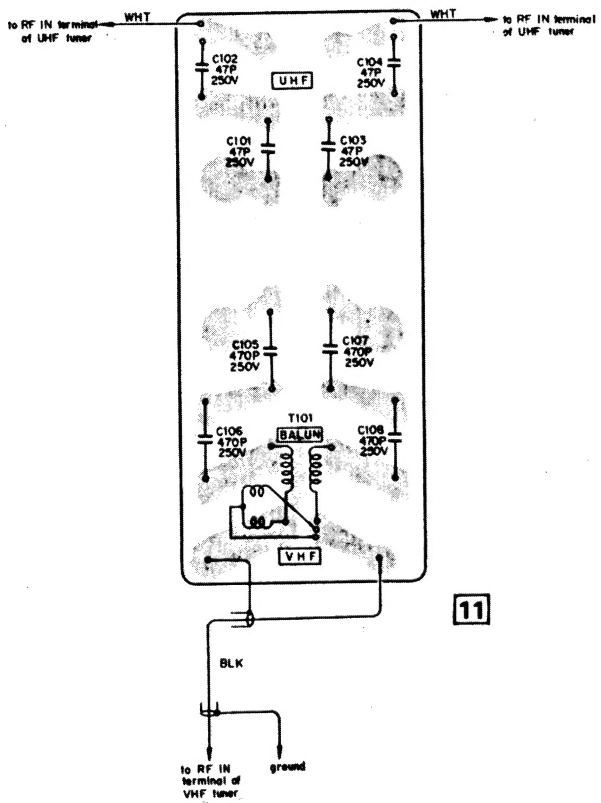



VH
HC
C


1 1.4Vp-p (H)
8 11Vp-p (H)
3.8Vp-p (V)
580Vp-p (H)
0.4Vp-p (H)
2 1.4Vp-p (H)
9 7Vp-p (H)
13Vp-p (V)
20Vp-p (H)
0.9Vp-p (H)
3 160Vp-p (H)
7Vp-p (H)
110Vp-p (V)
8.4Vp-p (H)
56Vp-p (H)
4 9Vp-p (H)
250Vp-p (H)
28Vp-p (V)
1.0Vp-p (H)
13Vp-p (H)
5 350Vp-p (H)
6Vp-p (V)
140Vp-p (H)
0.5Vp-p (H)
13Vp-p (H)
6 9Vp-p (H)
6.2Vp-p (V)
120Vp-p (H)
4.2Vp-p (H)
13Vp-p (H)
7 10Vp-p (H)
6.1Vp-p (V)
820Vp-p (H)
4.2Vp-p (H)
13Vp-p (H)

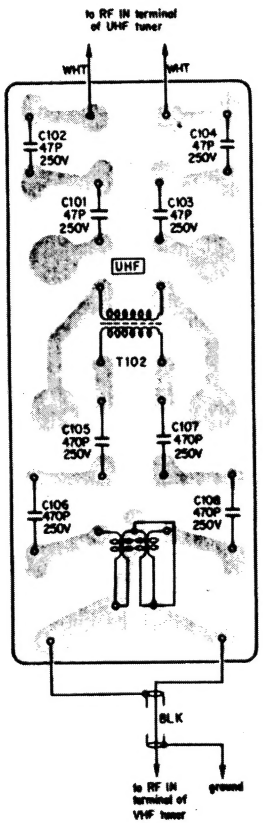

78Vp-p (H)
0.28Vp-p (H)
2.7Vp-p (H)
2.2Vp-p (H)
1.8Vp-p (H)
4.2Vp-p (H)
9Vp-p (H)
0.43p-p (H)
2.0Vp-p (H)
1.4Vp-p (H)
84Vp-p (H)
4.2Vp-p (H)
8Vp-p (H)
4.43 MHz
10Vp-p (H)
0Vp-p (H)
3.8Vp-p (H)
4.8Vp-p (H)
15Vp-p (H)
4.43 MHz
11Vp-p (H)
0.05Vp-p (H)
85Vp-p (H)
7.0Vp-p (H)
12Vp-p (H)
1.8Vp-p (H)
0.8Vp-p (H)
1.2Vp-p (H)
2.8Vp-p (H)
2.0Vp-p (H)
1.6Vp-p (H)

ANT CIRCUIT BOARD

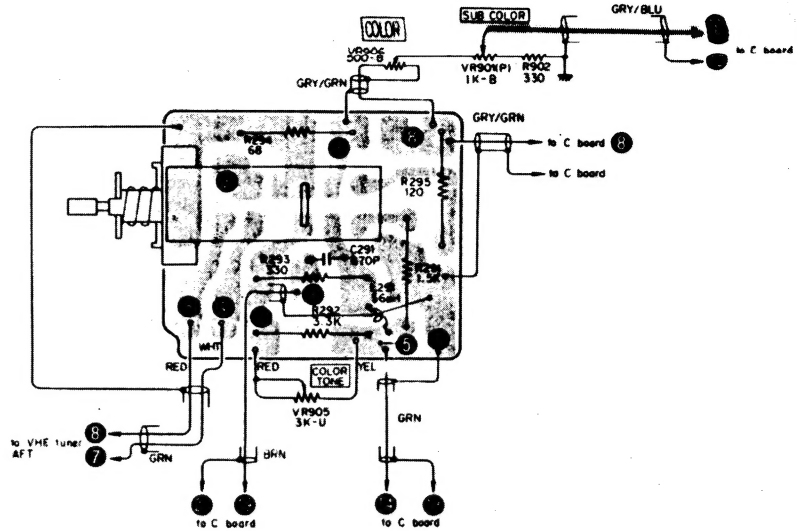


11

— Norway model only —



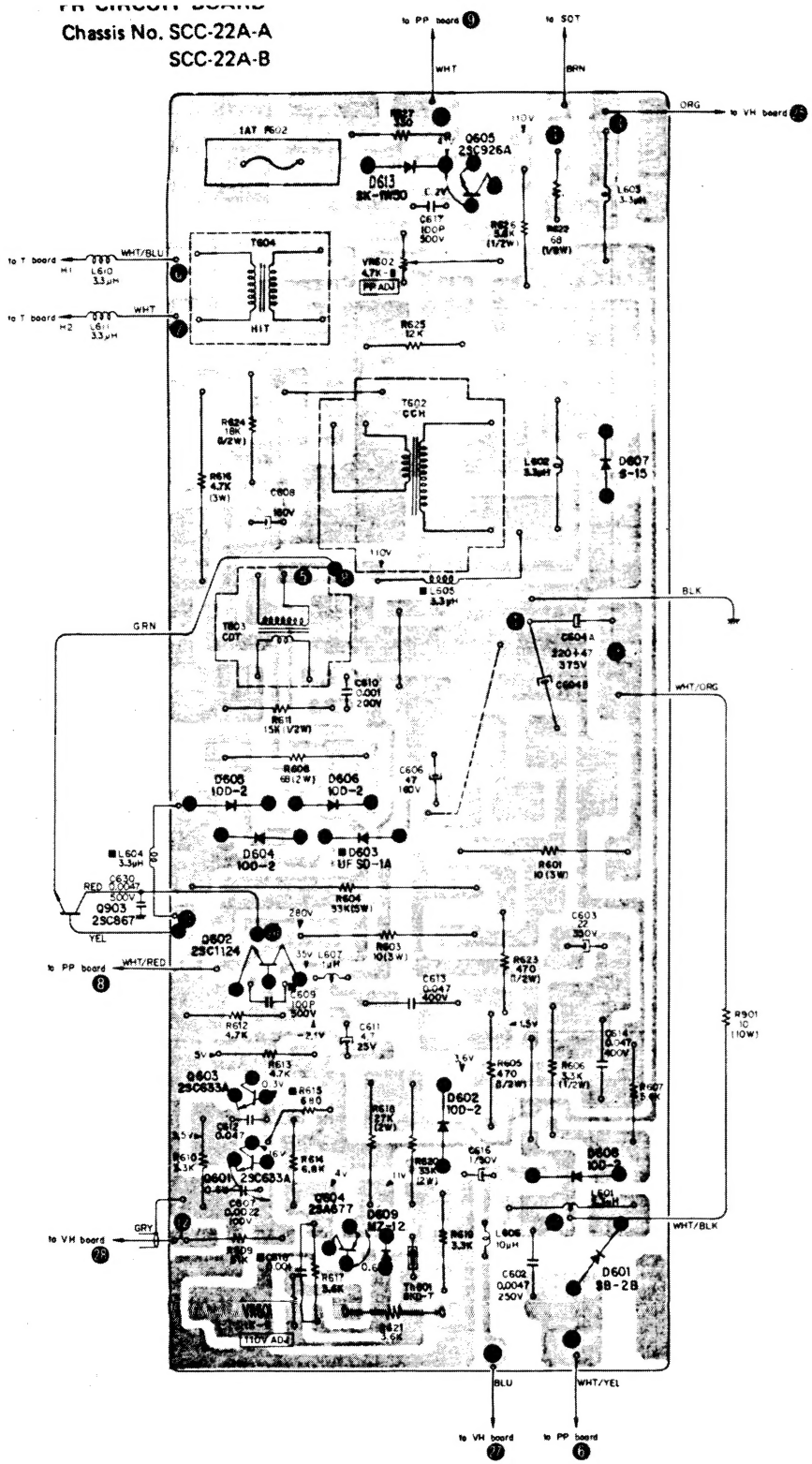
W CIRCUIT BOARD



Note: 1. All capacitors are 50WV unless otherwise specified.
2. All resistors are ¼W unless otherwise specified.
3. All resistance values are in ohms. k = 1,000.
4. All capacitance values are in μF except as indicated with p, which means $\mu\mu$F.
5. Voltages measured from chassis to point indicated with a VOM (DC 20 k ohms/V) at color signal input.
6. The parts marked ※ indicates a component whose value is selected to yield specified operating condition.
7. The blue circuled numbers (❶ ~ ❽) refer to waveform on page 51 and 52.

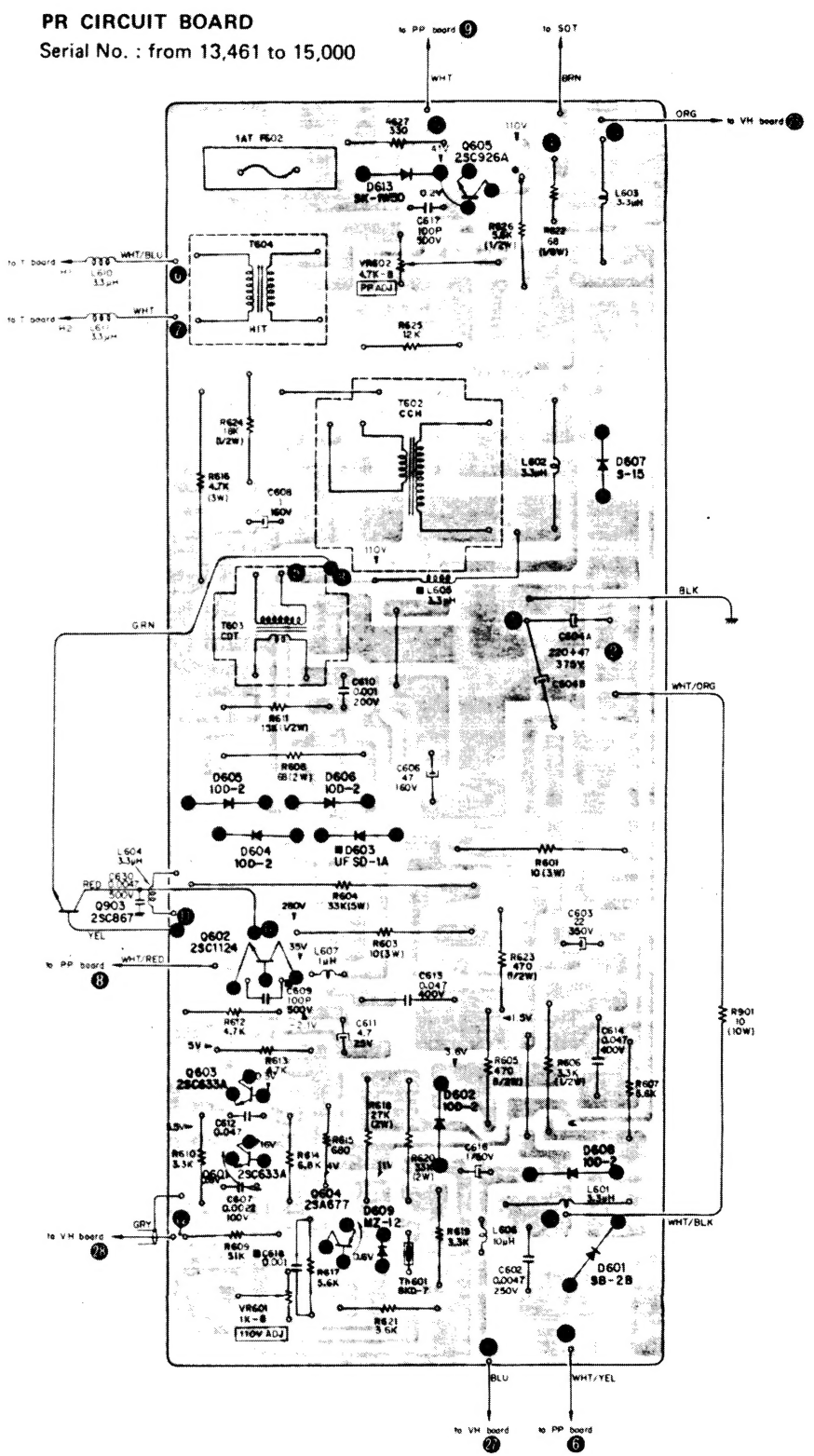
PR CIRCUIT BOARD

Chassis No. SCC-22A-A
SCC-22A-B



PR CIRCUIT BOARD

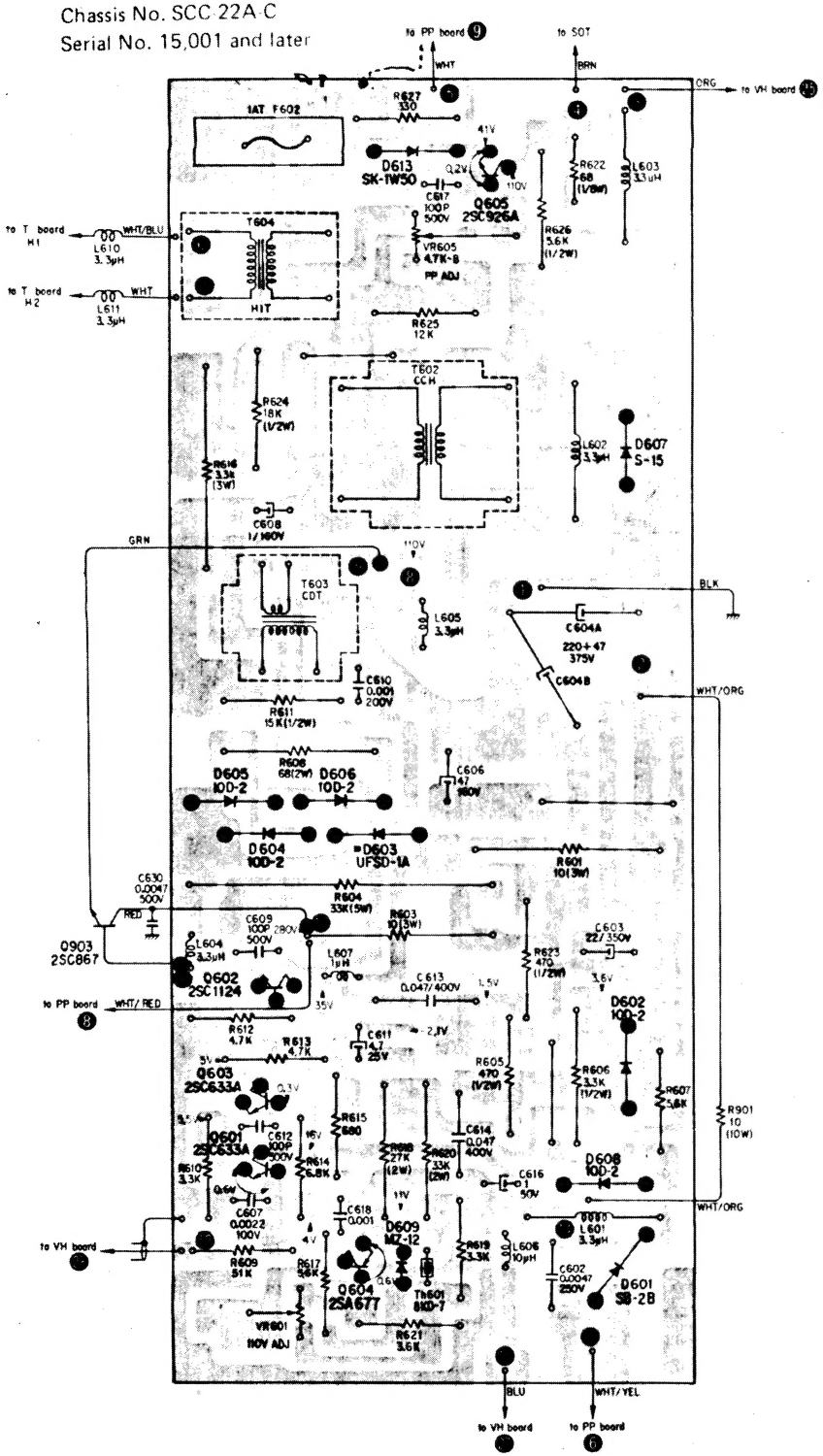
Serial No. : from 13,461 to 15,000



PR CIRCUIT BOARD

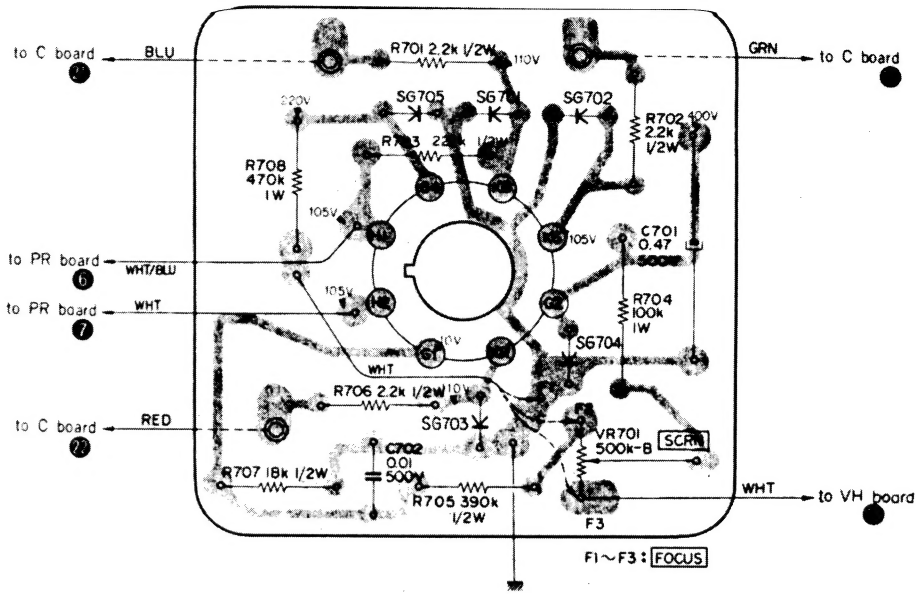
Chassis No. SCC-22A-C

Serial No. 15,001 and later



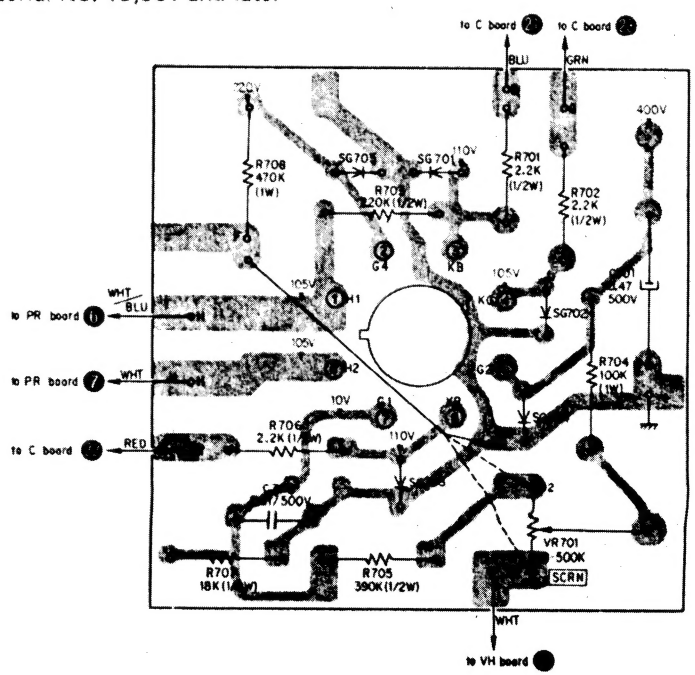
T CIRCUIT BOARD

Applicable serial No. up to 19,000



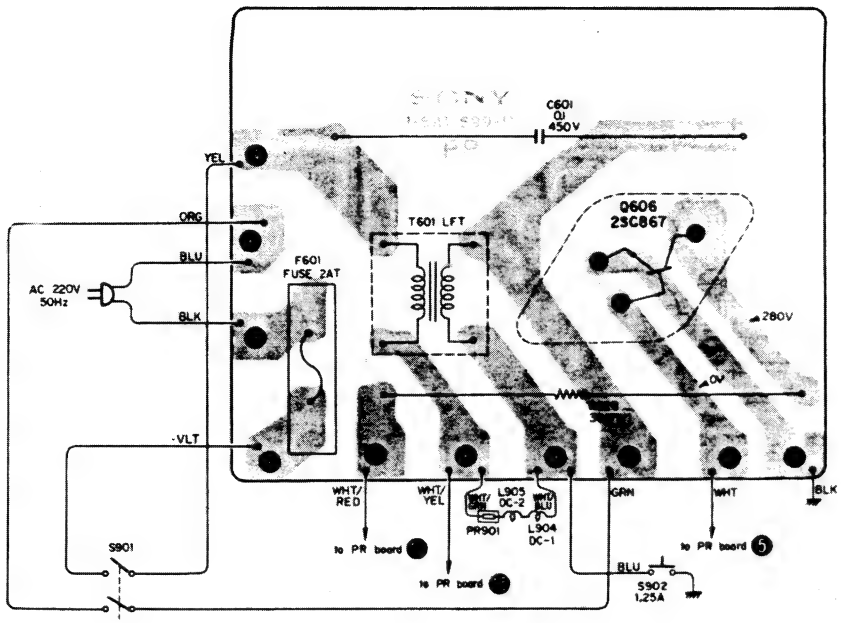
T CIRCUIT BOARD

Applicable serial No. 19,001 and later



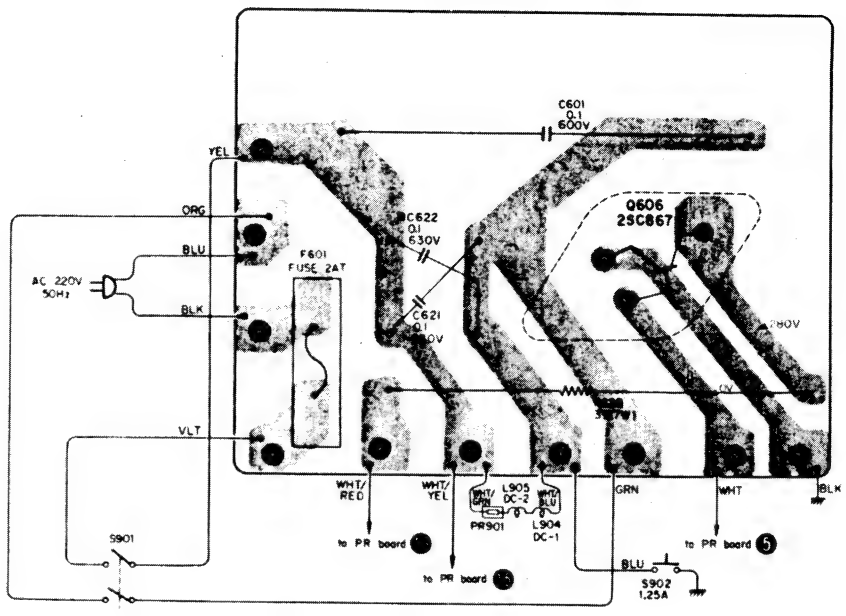
PP CIRCUIT BOARD

Serial No. Up to 14,000



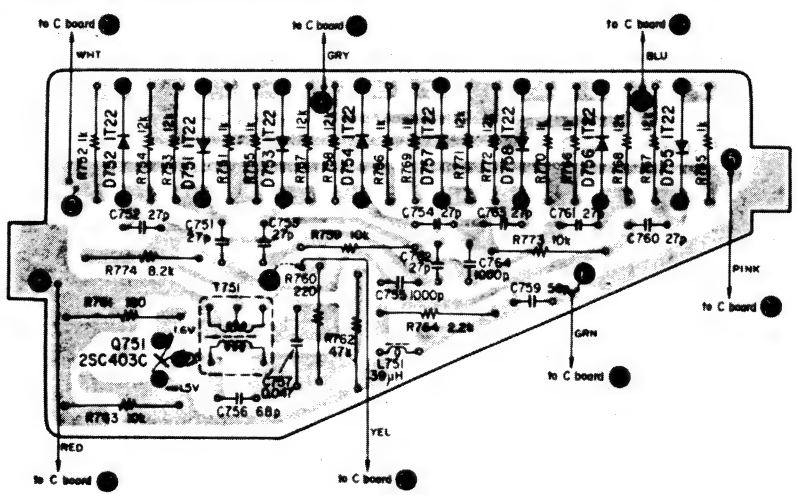
PP CIRCUIT BOARD

Serial No. : from 14,001 to 15,000



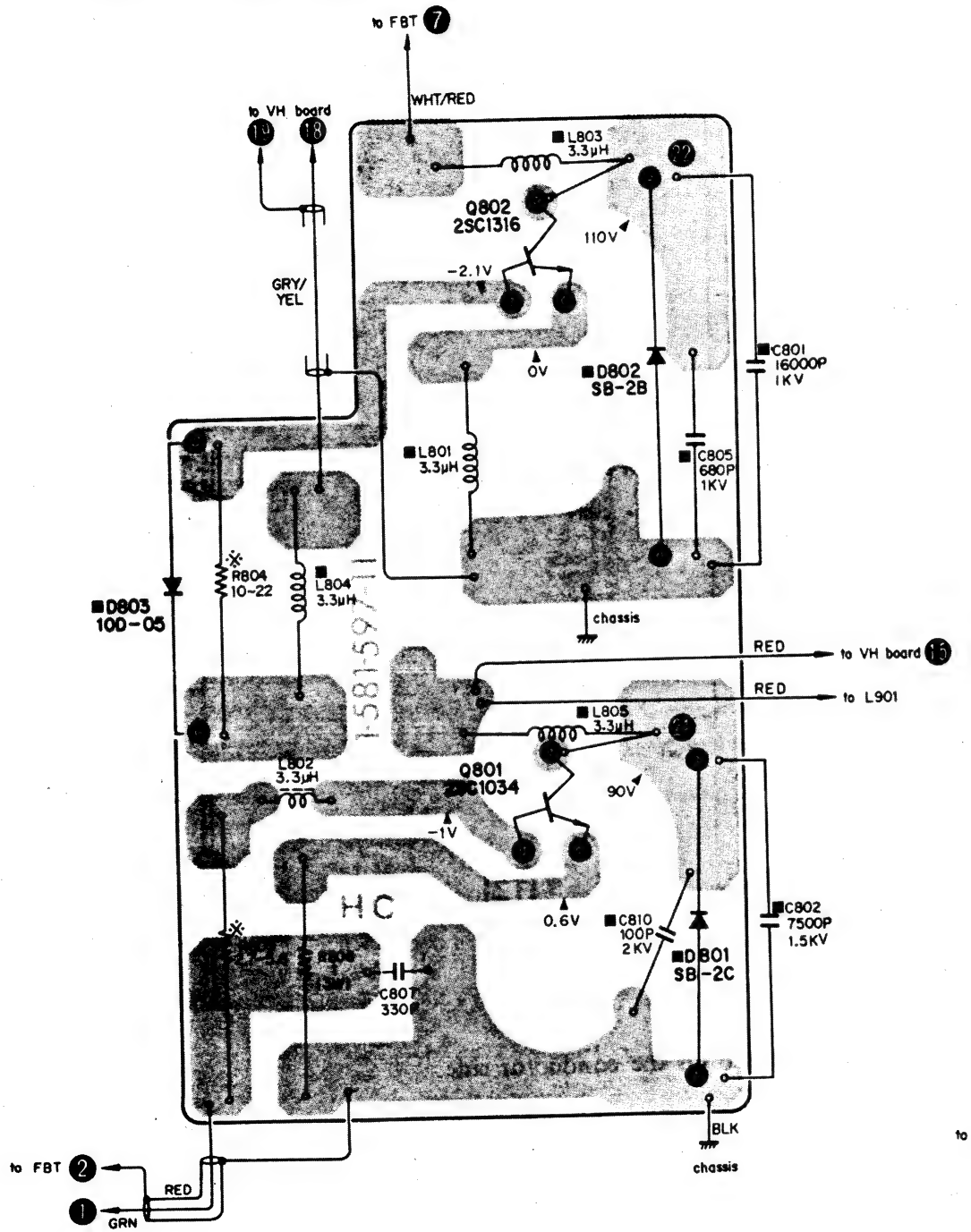
CA CIRCUIT BOARD

Chassis No. SCC-22A-A, SCC-22A-B



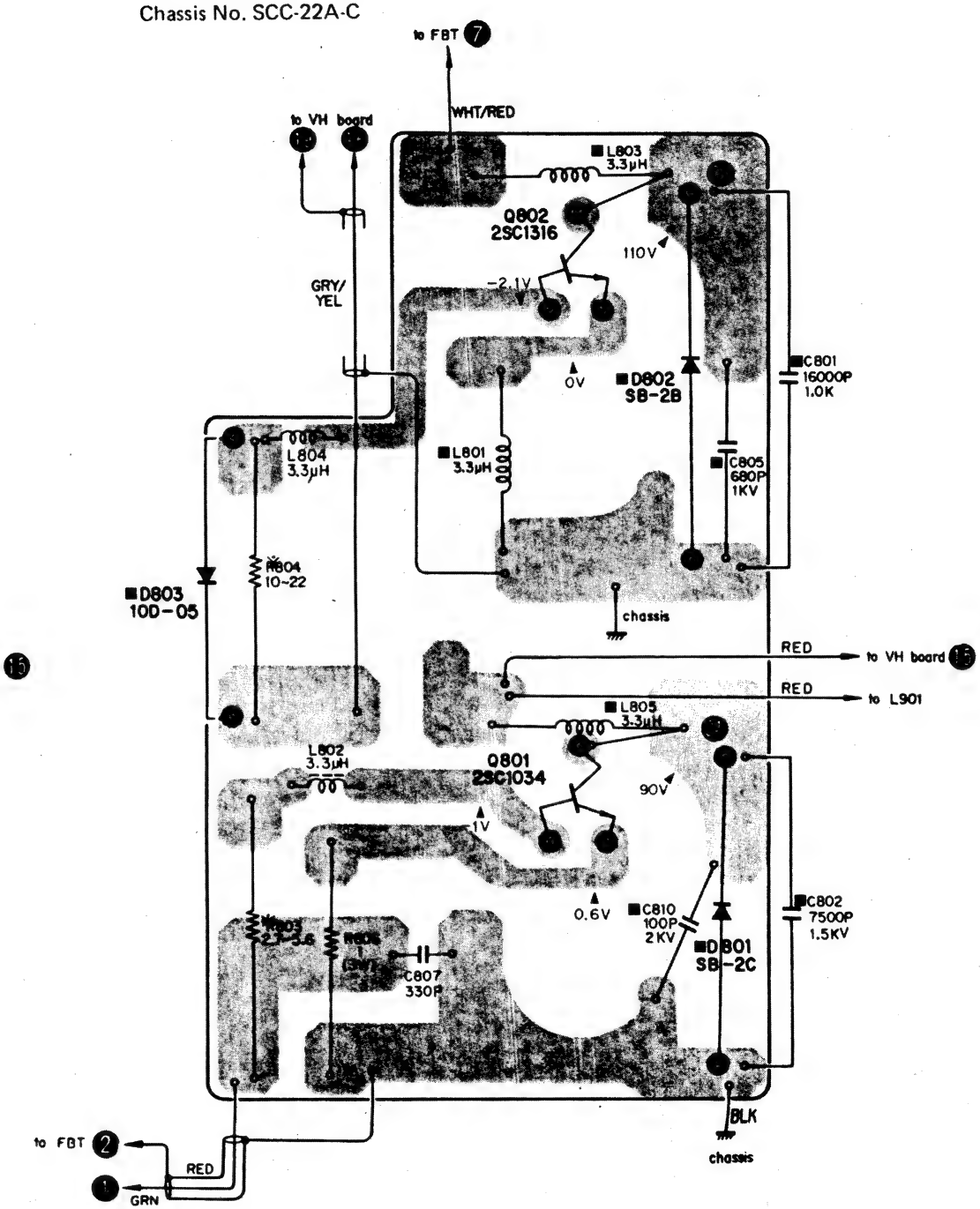
HC CIRCUIT BOARD

Chassis No. SCC-22A-A, SCC-22A-B



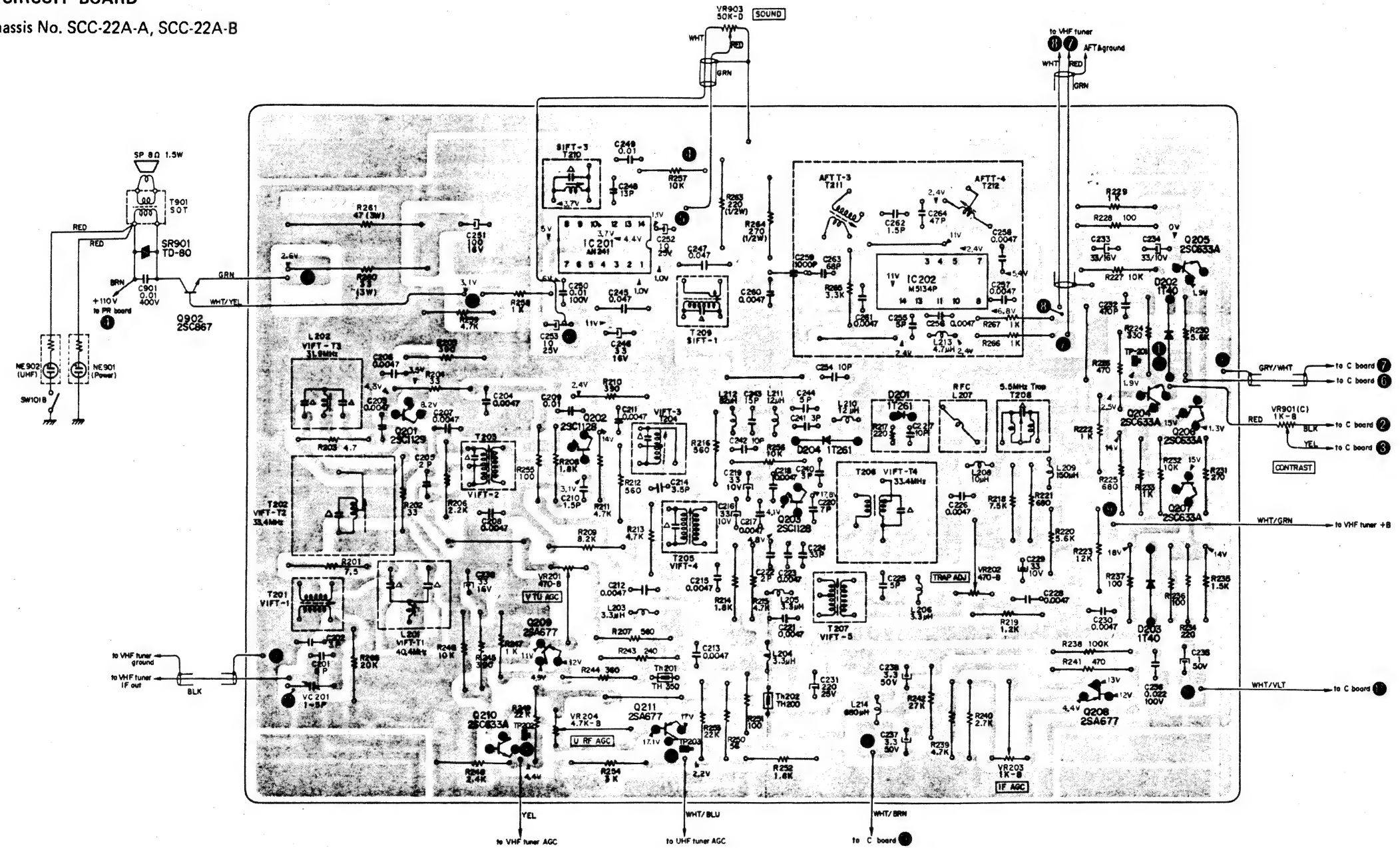
HC CIRCUIT BOARD

Chassis No. SCC-22A-C



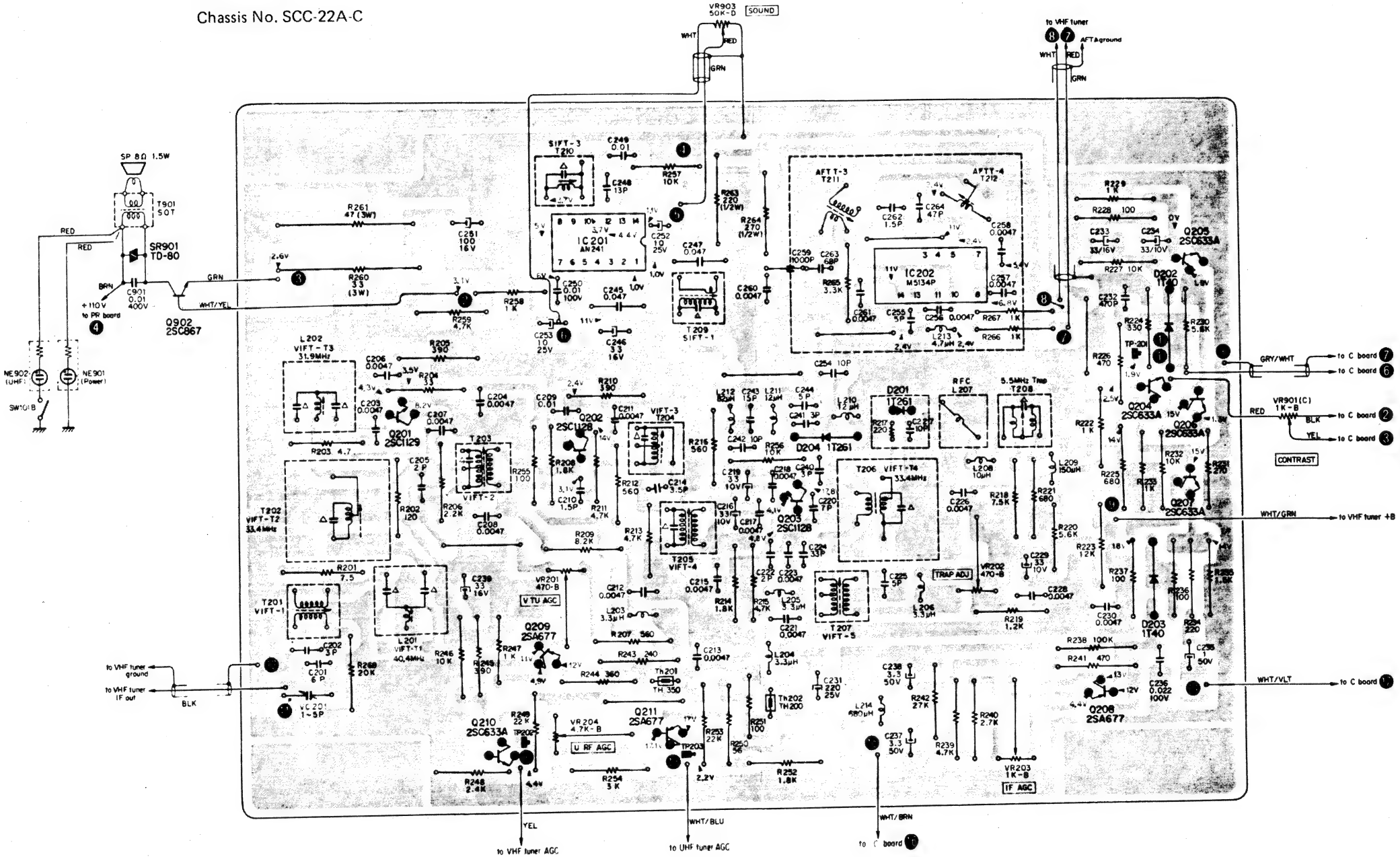
S CIRCUIT BOARD

Chassis No. SCC-22A-A, SCC-22A-B



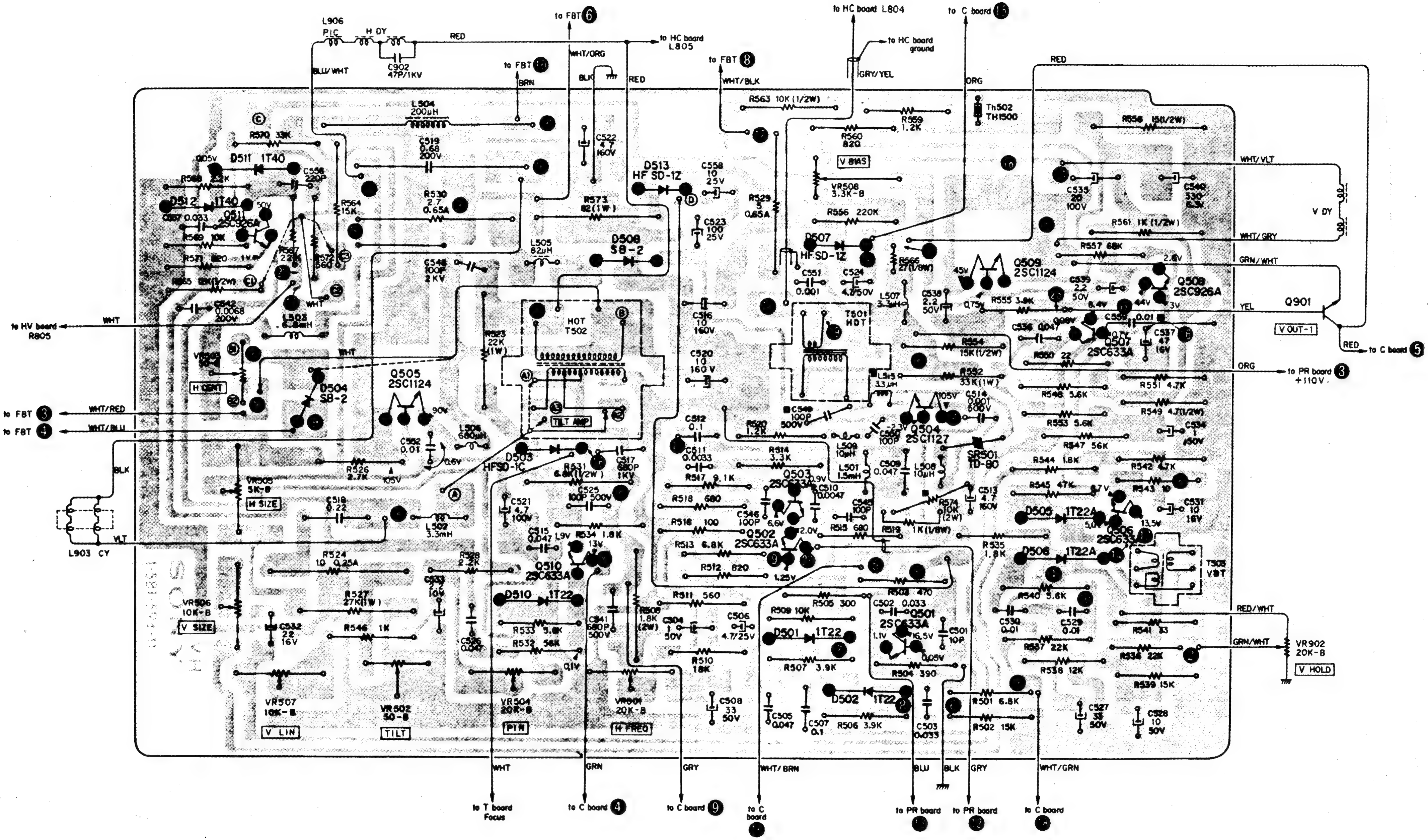
S CIRCUIT BOARD

Chassis No. SCC-22A-C



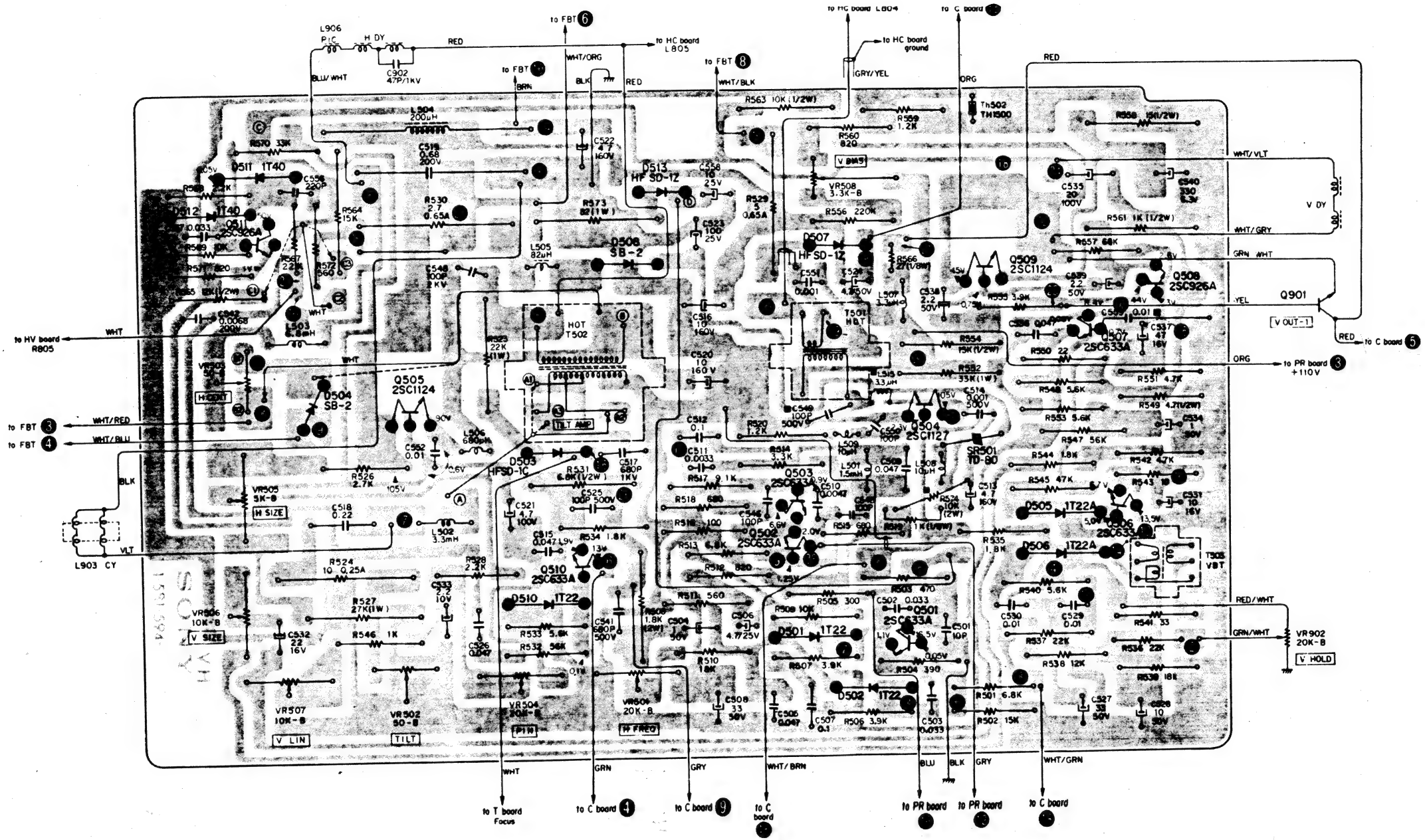
VH CIRCUIT BOARD

Chassis No. SCC-22A-A, SCC-22A-B



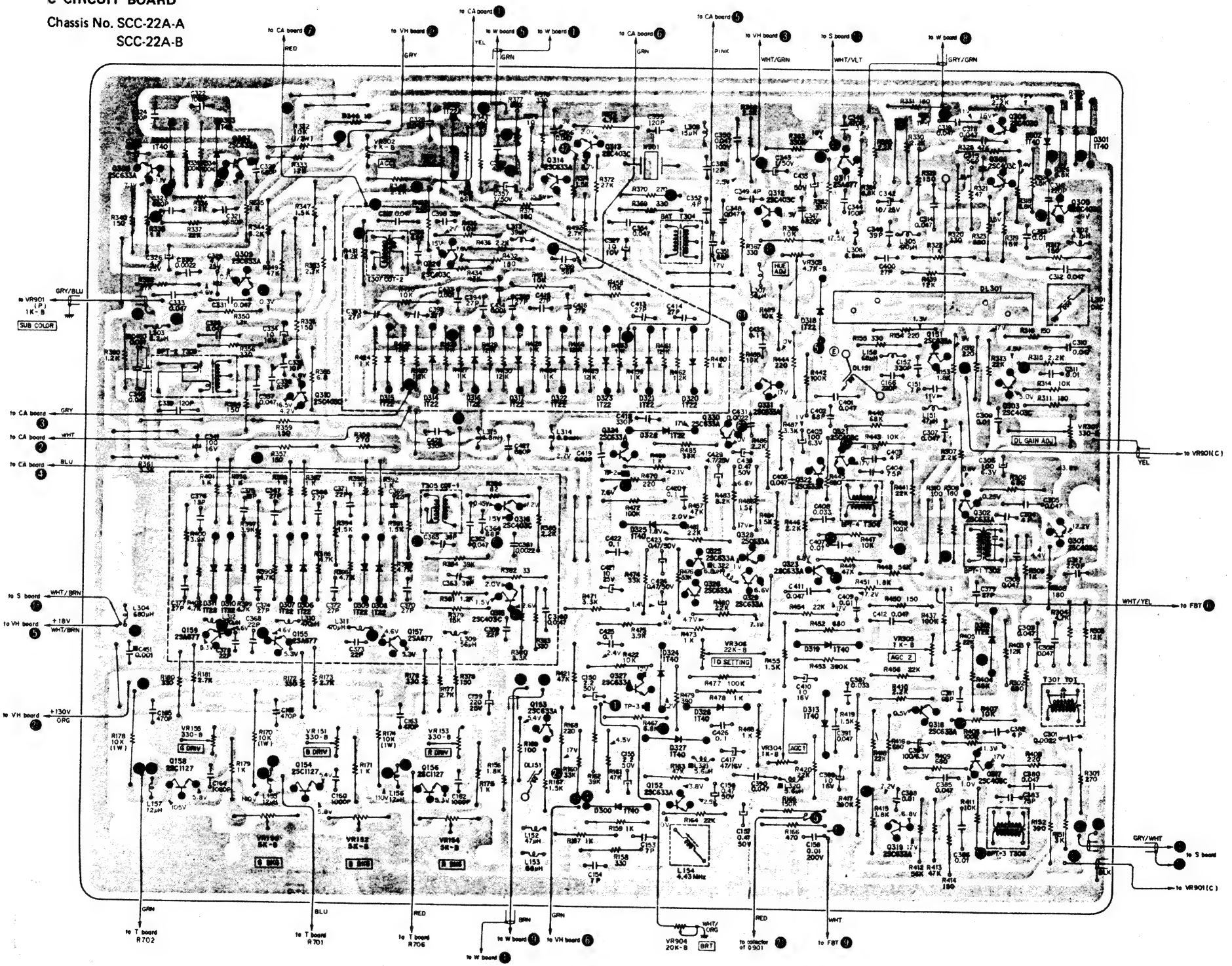
VH CIRCUIT BOARD

Chassis No. SCC-22A-C



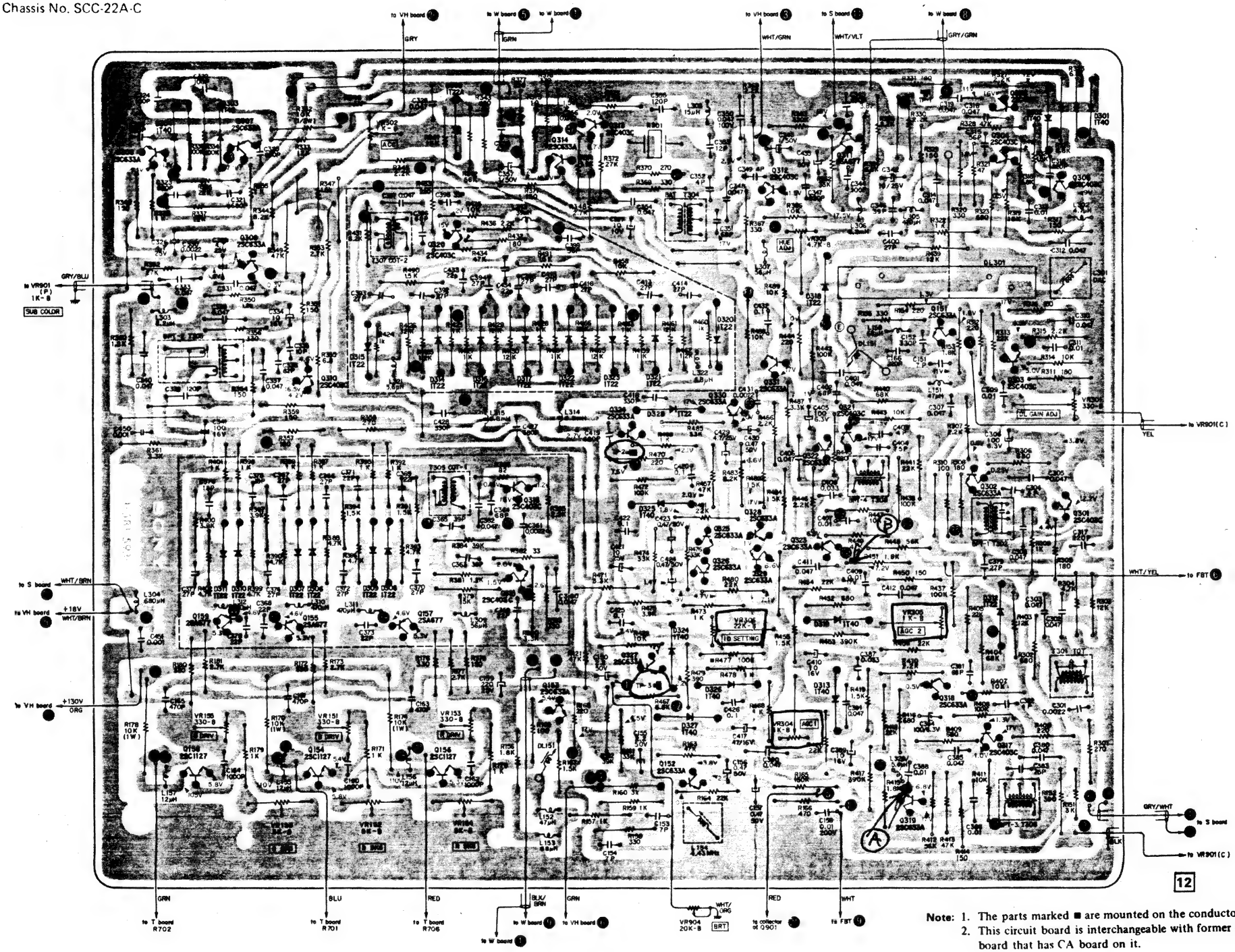
C CIRCUIT BOARD

Chassis No. SCC-22A-A
SCC-22A-B



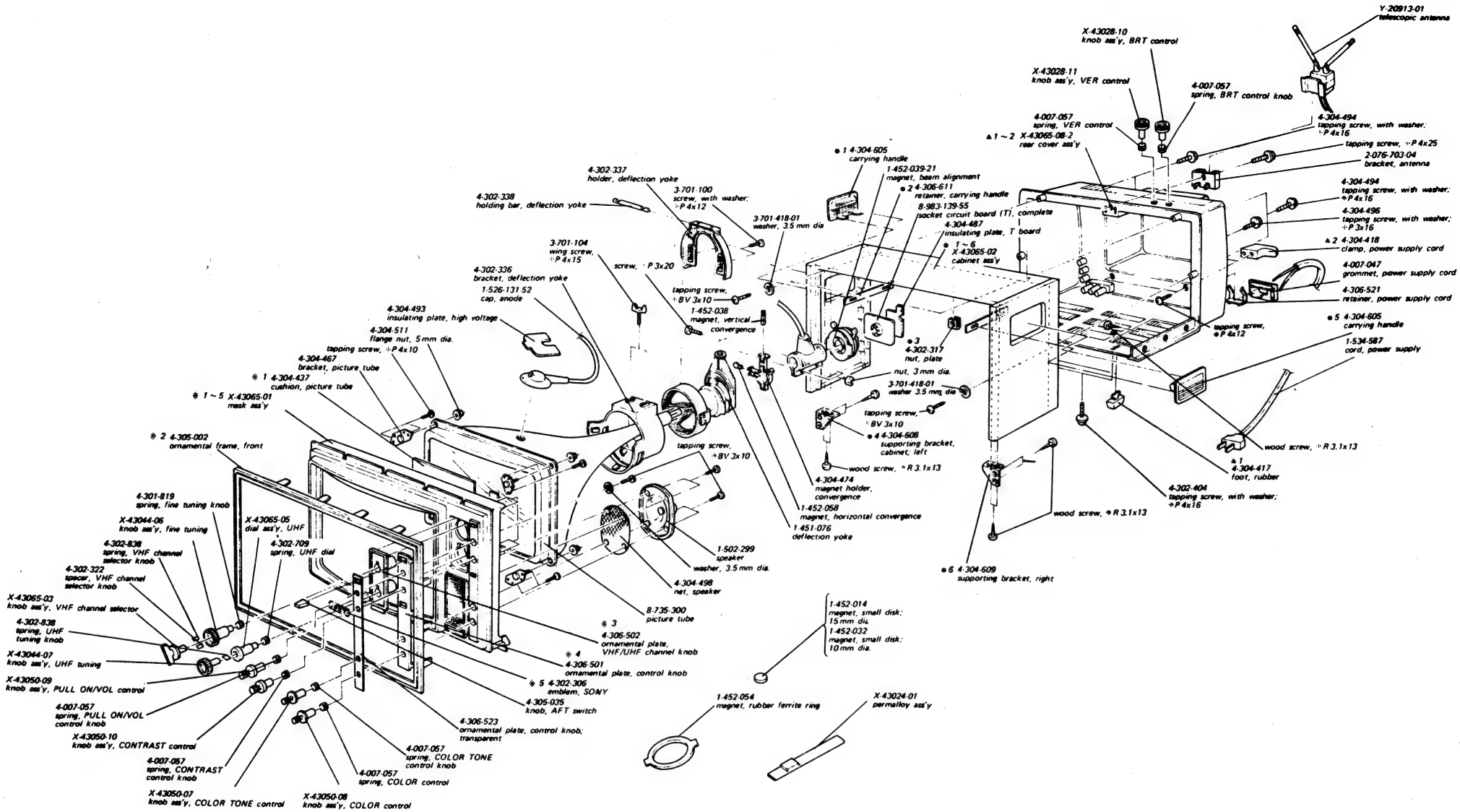
C CIRCUIT BOARD

Chassis No. SCC-22A-C



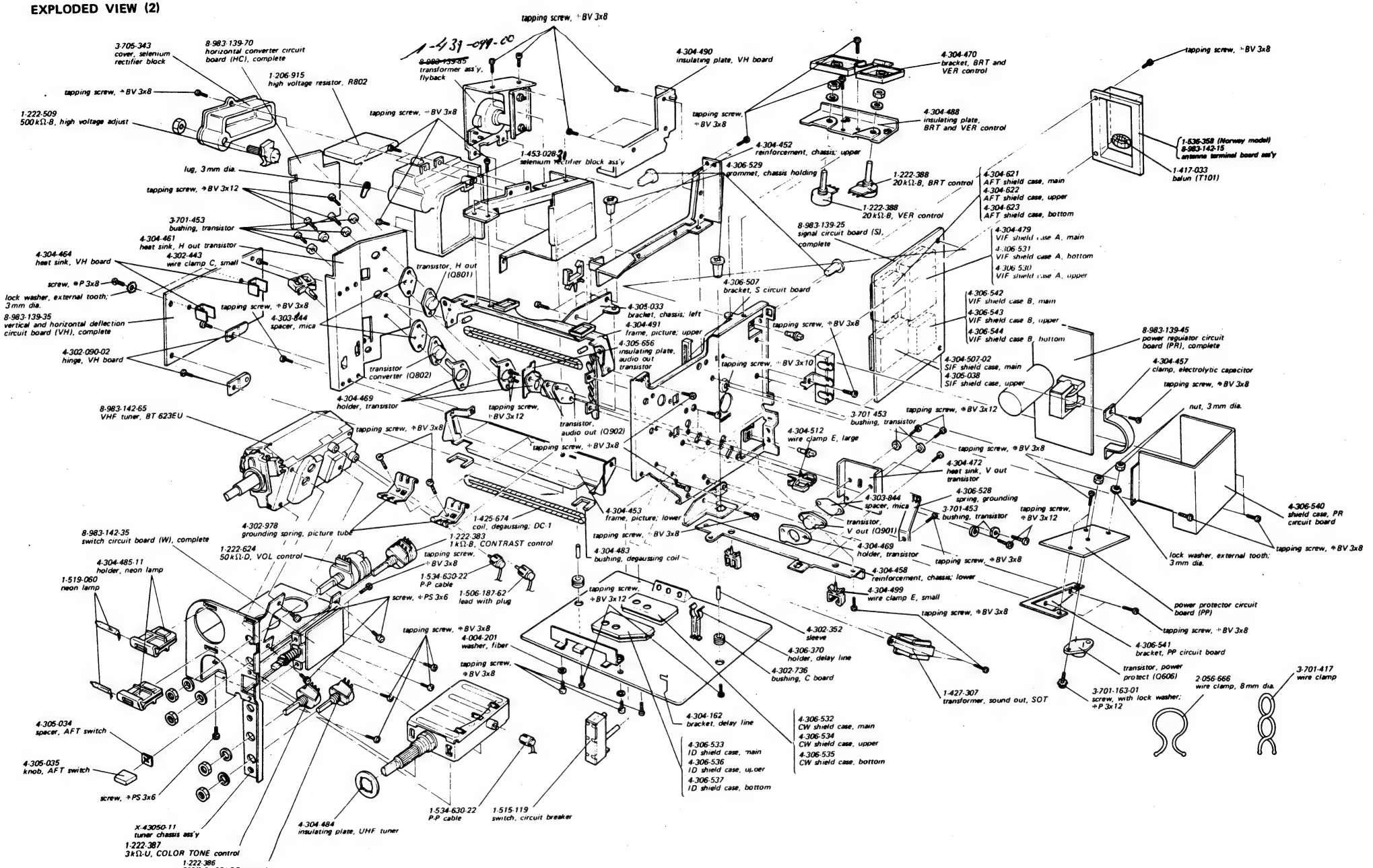
Note: 1. The parts marked ■ are mounted on the conductor side.
2. This circuit board is interchangeable with former circuit board that has CA board on it.

EXPLODED VIEW (1)



Note: ✱ 1 ~ 5: X-43065-01 mask ass'y
▲ 1 ~ 2: X-43065-08-2 rear cover ass'y
● 1 ~ 6: X-43065-02 cabinet ass'y

EXPLODED VIEW (2)



ELECTRICAL PARTS LIST

Ref. No.	Part No.	Description
	TUNERS AND CIRCUIT BOARDS	
	1-581-599-11	PP Board (power protector), SCC-22A-A/B
	1-581-599-12	PP Board (power protector), SCC-22A-C
	8-983-139-70	HC Board (horizontal converter), complate
	8-983-139-15	C Board (chroma circuit), complete
	8-983-139-25	S Board (signal circuit), complete
	8-983-139-35	VH Board (vertical horizontal deflection), complete
	8-983-139-45	PR Board (power regulator), complete
	8-983-139-55	T Board (socket circuit), complete
	8-983-139-85	Transformer Ass'y, flyback (T801)
	8-983-142-15	Antenna Terminal Board Ass'y
	including	
	1-536-358-00	(1-536-358 : Norway model)
	1-417-033-00	Balun (T101)
	1-508-492-00	Antenna Socket, UHF
	1-508-493-00	Antenna Socket, VHF
	3-705-455-00	Plate, antenna terminal
	1-581-591-00	Antenna Board
	1-417-040-00	Transformer (T102) : Norway model
	8-983-142-25	UHF Tuner, BT-123
	8-983-142-35	W Board (switch circuit), complete
	8-983-142-65	VHF Tuner, BT-623EU
	SEMICONDUCTORS	
	Transistors	
➡ Q151–153	8-729-663-47	2SC1364
➡ Q154, 156, ➡ Q158	8-729-322-78	2SC2278
➡ Q155, 157, ➡ Q159	8-729-612-77	2SA1027R
Q201	8-725-923-00	2SC1129
Q202, 203	8-725-800-00	2SC1128
➡ Q204–207	8-729-663-47	2SC1364
➡ Q208, 209	8-729-612-77	2SA1027R
➡ Q210	8-729-663-47	2SC1364
➡ Q211	8-729-612-77	2SA1027R
Q301	8-724-375-01	2SC403C
➡ Q302	8-729-663-47	2SC1364
Q303–306	8-724-375-01	2SC403C
➡ Q307–309	8-729-663-47	2SC1364
Q310	8-724-375-01	2SC403C
➡ Q311	8-729-612-77	2SA1027R
Q312, 313	8-724-375-01	2SC403C
➡ Q314	8-729-663-47	2SC1364
Q315–317	8-724-375-01	2SC403C
➡ Q318, 319	8-729-663-47	2SC1364
Q320, 321	8-724-375-01	2SC403C
➡ Q322–331	8-729-668-47	2SC1364
➡ Q501–503	8-729-663-47	2SC1364
Q504, 505	8-725-412-00	2SC1124
➡ Q506, 507	8-729-663-47	2SC1364
➡ Q508	8-729-255-12	2SC2551
Q509	8-725-412-00	2SC1124
➡ Q510	8-729-663-47	2SC1364
➡ Q511	8-729-255-12	2SC2551
➡ Q601	8-729-663-47	2SC1364
Q602	8-725-412-00	2SC1124
➡ Q603	8-729-663-47	2SC1364
➡ Q604	8-729-612-77	2SA1027R
➡ Q605	8-729-255-12	2SC2551
➡ Q606	8-765-132-00	2SC867A
➡ Q751	8-724-375-01	2SC403C (Chassis No. SCC-22A-A/B)
Q801	8-723-424-16	2SC1034
Q802	8-728-693-00	2SC1316
➡ Q901–903	8-765-132-00	2SC867A
	Diodes	
D201	8-719-026-11	1T261
➡ D201, 203	8-719-815-55	1S1555
D204	8-719-026-11	1T261
➡ D300	✱8-719-815-55	1S1555
➡ D301–304	8-719-815-55	1S1555
➡ D305	8-719-422-21	1T22AM
➡ D306–312	8-719-422-21	1T22AM
➡ D313	8-719-815-55	1S1555
➡ D314–318	8-719-422-21	1T22AM
➡ D319	8-719-815-55	1S1555
➡ D320–323	8-719-422-21	1T22AM
➡ D324–327	8-719-815-55	1S1555
➡ D328	8-719-422-21	1T22AM
➡ D501, 502	8-719-422-21	1T22AM
➡ D503	8-719-305-15	GH3F
➡ D504	8-719-305-15	GH3F
➡ D505, 506	8-719-422-21	1T22AM
➡ D507	8-719-305-15	GH3F
➡ D508	8-719-305-15	GH3F
➡ D510	8-719-422-21	1T22AM
➡ D511, 512	8-719-815-55	1S1555
➡ D513	8-719-305-15	GH3F
D601	8-719-302-22	SB-2B
➡ D602	8-719-200-02	10E2
➡ D603	8-719-333-10	UF1C
➡ D604–606	8-719-200-02	10E2
➡ D607	8-719-301-51	S-15H
➡ D608	8-719-200-00	10E2
➡ D609	8-719-930-12	EQB01-12Z
D613	8-719-200-50	SK-1W50
➡ D751–758	8-719-422-21	1T22AM (SCC-22A-A/B only)
➡ D801	8-719-305-15	GH3F
D802	8-719-302-22	SB-2B
➡ D803	8-719-200-02	10E2
DC801	1-453-028-21	Selenium Rectifier Block Ass'y
	including	
	1-222-509-00	500kΩ-B, adjustable; VR801 (High Voltage)
	1-206-915-00	High Voltage Resistor, R802
	ICs	
➡ IC201	8-759-311-25	HA1125
IC202	8-759-651-34	M-5134P

Ref. No.	Part No.	Description
	MISCELLANEOUS	
Th201	1-800-071-00	Thermistor, TH-350
Th202	1-800-059-00	Thermistor, TH-200
Th502	1-800-069-00	Thermistor, TH-15000
Th601	1-800-081-00	Thermistor, 8KD-7
SR501, 901	1-800-032-00	Varistor, TD-80
PR901	1-800-080-00	Thermistor (positive)
	COIL	
	All coils are microinductors unless otherwise noted.	
L151, 152	1-407-165-00	47μH
L153	1-407-167-00	68μH
L154	1-409-193-00	Coil, wave trap; 4.43MHz
L155–157	1-407-158-00	12μH
L158	1-407-167-00	68μH
L201	1-409-214-00	VIFT-T1 40.4MHz
L202	1-409-215-00	VIFT-T3 31.9MHz
L203–206	1-407-184-00	3.3μH
L207	1-425-504-00	RF Choke
L208	1-407-190-00	10μH
L209	1-407-171-00	150μH
L210, 211	1-407-158-00	12μH
L212	1-407-168-00	82μH
L213	1-407-186-00	4.7μH
L214	1-407-557-00	680μH
L291	1-407-166-00	56μH
L301	1-425-671-00	DAC
L302	1-407-186-00	4.7μH
L303	1-407-189-00	8.2μH
L304	1-407-557-00	680μH
L305	1-407-177-00	470μH
L306	1-407-204-21	6.8mH
L307	1-407-166-00	56μH
L308	1-407-159-00	15μH
L309	1-407-166-00	56μH
L310–312	1-407-177-00	470μH
L313	1-407-164-00	39μH
L314, 315	1-407-595-00	6.8mH
L320, 321	1-407-186-00	5.6μH
L322	1-407-188-00	6.8μH

Note:

➡: *Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.*

The mark ✱ indicates the parts which is changed after serial No. 15,001.

Ref. No.	Part No.	Description
L501	1-407-552-00	1.5mH
L502	1-459-075-00	3.3mH, dynamic convergence
L503	1-459-074-00	6.8mH, horizontal centering
L504	1-407-346-00	200μH Choke, spook
L505	1-407-553-00	82μH Choke, spook
L506	1-407-193-21	680μH
L507	1-407-364-00	3.3μH Choke
L508, 509	1-407-190-00	10μH
L515	1-407-364-00	3.3μH
L601–605	1-407-364-00	3.3μH
L606	1-407-190-00	10μH
L607	1-407-178-00	1μH
L610, 611	1-407-364-00	3.3μH
L801–805	1-407-364-00	3.3μH
L904, 905	1-425-674-00	Degauss (DC-1, 2)
L906	1-452-039-21	Beam Alignment Magnet
DL151	1-415-047-00	Delay Line
DL301	1-415-046-00	Delay Line
✱L751	1-407-164-00	39μH (SCC-22A-A/B)

TRANSFORMERS

T201	1-403-728-00	VIFT-1
T202	1-409-217-00	VIFT-T2 33.4MHz
T203	1-403-729-00	VIFT-2
T204	1-403-841-00	VIFT-3
T205	1-403-729-00	VIFT-4
T206	1-409-218-00	VIFT-T4 33.4MHz
T207	1-403-730-00	VIFT-5
T208	1-409-235-00	Coil, wave trap; 5.5MHz
T209	1-403-842-00	SIFT-1
T210	1-403-843-00	SIFT-3
T211	1-403-810-00	AFT T3
T212	1-403-811-00	AFT T4
T301	1-403-844-21	TOT
T302	1-403-845-21	BPT-1
T303	1-425-506-21	BPT-2
T304	1-405-372-21	BAT
T305	1-425-618-21	COT-1
T306	1-403-846-21	BPT-3
T307	1-425-618-21	COT-2
T308	1-403-846-21	BPT-4
T501	1-437-030-00	HDT
T502	1-439-097-00	HOT
T503	1-435-008-00	VBT
✱T601	1-421-302-21	LFT
T602	1-437-032-00	CCH
T603	1-437-033-00	CDT
T604	1-441-855-00	HIT
✱T751	1-425-618-00	COT-3
T901	1-427-307-00	SOT

CAPACITORS

All capacitors are in μF and ceramic unless otherwise noted.
50WV or less are not indicated except for electrolytics.
p : μμF, elect : electrolytic

C101–104	1-102-238-00	47p		
C105–108	1-102-239-00	470p		
C111	1-121-257-00	5	15V	elect
C259	1-102-043-00	1000p	500V	feed throug.
C513	1-121-246-00	4.7	160V	elect
C514	1-102-038-00	0.001	500V	
C517	1-102-219-00	680p	1kV	
C519	1-108-549-11	0.68	200V	mylar
C520	1-121-921-00	10	160V	elect
C522	1-121-919-00	47	160V	elect
C525	1-101-810-00	100p	500V	
C541	1-102-002-00	680p	500V	
C549	1-101-810-00	100p	500V	
C601	1-115-101-21	0.1	450V	oil
C602	1-102-240-00	0.0047	250V	
C603	1-123-022-00	22	350V	elect
C604	1-125-080-00	220	375V	elect
C606	1-121-919-00	47	160V	elect
C608	1-121-189-00	1	160V	elect
C609	1-108-810-00	100p	500V	
C613, 614	1-105-801-13	0.047	400V	mylar
C617	1-101-810-00	100p	500V	
✱C621	1-129-739-00	0.1	630V	film (SCC-22A-C)
✱C622	1-129-739-00	0.1	630V	film
✱C623	1-108-745-21	0.22	250V	mylar
C630	1-102-085-00	0.0047	500V	
C701	1-119-327-00	0.47	500V	elect
C702	1-102-050-00	0.01	500V	
C801	1-129-864-00	16,000p	1000V	film
C802	1-129-859-00	7500p	1500V	film
C804	1-102-155-00	330p	2kV	
C805	1-102-219-00	680p	1kV	
C806	1-102-038-00	0.001	500V	
C808, 809	1-102-038-00	0.001	500V	
C810	1-102-153-00	100p	2kV	
C901	1-105-793-00	0.01	400V	mylar

RESISTORS

All resistors are in ohms. Common ¼W carbon resistors are omitted.
Refer to the list on the last page for their part numbers.
All variable and adjustable resistors have characteristic curve B, unless otherwise noted. kΩ : 1000Ω, MΩ : 1000kΩ

R170	1-206-104-00	10k	1W	metal oxide
R174	1-206-104-00	10k	1W	metal oxide
R178	1-206-104-00	10k	1W	metal oxide
R260	1-217-027-00	33	3W	cement coated
R261	1-217-027-00	47	3W	cement coated
R508	1-206-017-00	1.8k	2W	metal oxide
R519	1-211-451-00	1k	1/8W	carbon
R523	1-202-792-00	22k		composition
R524	1-207-903-00	10		fuse
R527	1-206-109-00	27k	1W	metal oxide
R529	1-207-241-00	5		fuse
R530	1-207-982-00	2.7		fuse
R549	1-207-471-00	4.7	½W	wire wound
R552	1-202-794-00	33k		composition
R566	1-211-932-00	27	1/8W	
R573	1-206-080-00	82	1W	metal oxide
R574	1-206-688-00	10k	2W	metal oxide
R601	1-207-657-00	10	3W	wire wound
R603	1-207-657-00	10	3W	wire wound
R604	1-206-823-00	33k	5W	metal oxide
R608	1-206-483-00	68	2W	metal oxide
R616	1-206-741-00	4.7	3W	metal oxide
R618	1-206-698-00	27k	2W	metal oxide
R620	1-206-700-00	33k	2W	metal oxide
R622	1-211-931-00	68	1/8W	carbon
R628	1-207-942-00	39	7W	wire wound
R701, 702	1-202-581-00	2.2k	½W	composition
R703	1-202-627-00	220k	½W	composition
R704	1-202-800-00	100k	½W	composition
R705	1-202-635-00	390k	½W	composition
R706	1-202-581-00	2.2k	½W	composition
R707	1-202-603-00	18k	½W	composition
R708	1-202-808-00	470k	1W	composition
✱R803	1-206-918-00	2.7	3W	metal film
	1-206-921-00	4.7	3W	metal film
	1-206-922-00	5.6	3W	metal film
✱R804	1-206-925-00	10	3W	metal film
	1-206-927-00	15	3W	metal film
	1-206-928-00	18	3W	metal film
	1-206-929-00	22	3W	metal film
R805	1-202-788-00	10k		composition
R806	1-217-007-00	1	3W	cement coated
R901	1-205-483-00	10	10W	cement coated

VR151	1-222-515-00	330, adjustable; B. DRIVE
VR152	1-222-344-00	5k, adjustable; B. BKG
VR153	1-222-515-00	330, adjustable; R. DRIVE
VR154	1-222-344-00	5k, adjustable; R. BKG
VR155	1-222-515-00	330, adjustable; G. DRIVE
VR156	1-222-344-00	5k, adjustable; G. BKG
VR201	1-222-516-00	470, adjustable; AGC
VR202	1-222-516-00	470, adjustable; TRAP
VR203	1-222-517-00	1k, adjustable; IF AGC
VR204	1-222-518-00	4.7k, adjustable; UHF RF AGC
VR301	1-222-515-00	330, adjustable; DL GAIN
VR302	1-222-517-00	1k, adjustable; ACC
VR303	1-222-518-00	4.7, adjustable; COLOR
VR304	1-222-517-00	1k, adjustable; AGC-1
VR305	1-222-517-00	1k, adjustable; AGC-2
VR306	1-222-786-00	22k, adjustable; ID SETTING

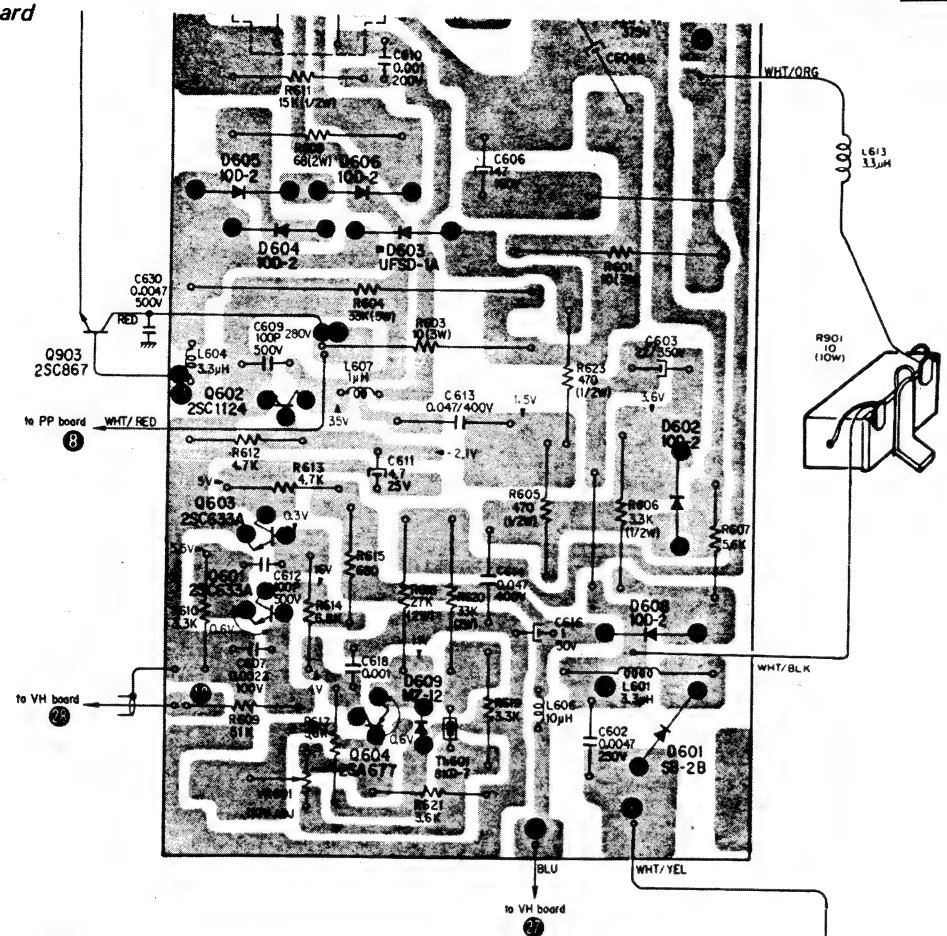
Ref. No.	Part No.	Description
VR501	1-222-725-00	20k, adjustable; H. FREQ
VR502	1-223-017-00	50k, adjustable; TILT
VR503	1-223-017-00	50k, adjustable; H. CENT
VR504	1-222-725-00	20k, adjustable; PIN
VR505	1-222-344-00	5k, adjustable; H. SIZE
VR506	1-222-512-00	10k, adjustable; V. SIZE
VR507	1-222-512-00	10k, adjustable; V. LIN
VR508	1-222-784-00	3.3k, adjustable; V. BIAS
VR601	1-222-517-00	1k, adjustable; 110V
VR602	1-222-518-00	4.7k, adjustable; PP
VR701	1-222-809-00	500k, adjustable; SCRN
VR801	1-222-509-00	500k, adjustable; H. STAT
VR901	1-222-383-00	1k, variable; CONTRAST
VR902	1-222-388-00	20k, variable; VER
VR903	1-222-624-00	50k-D, variable; VOL
VR904	1-222-388-00	20k, variable; BRT
VR905	1-222-387-00	3k-U, variable; COLOR TONE
VR906	1-222-386-00	500, variable; COLOR

MISCELLANEOUS

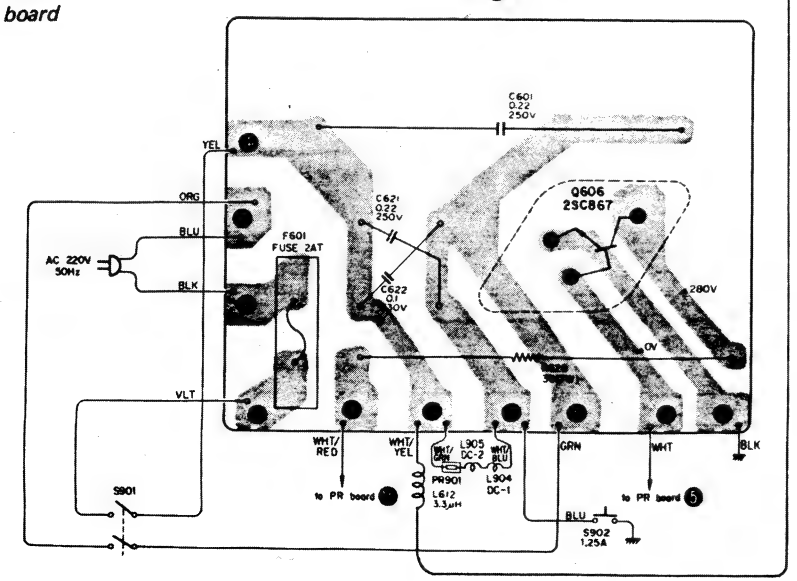
DY	1-451-676-11	Deflection Yoke
F601	1-532-203-00	Fuse, 2A
F602	1-532-078-00	Fuse, 1A
S902	1-515-119-00	Switch, circuit breaker
SG701–705	1-519-063-00	Spark Gap 1.5kV
NE901	1-519-060-00	Neon Lamp, POWER
NE902	1-519-060-00	Neon Lamp, UHF
VC201	1-141-138-00	1 – 5pF, trimmer
X301	1-527-183-00	Crystal
	1-452-014-00	Magnet, small disk; 15mm dia.
	1-452-032-00	Magnet, small disk; 10mm dia.
	1-452-038-00	Magnet, vertical convergence
	1-452-054-00	Magnet, rubber ferrite ring
	1-452-058-00	Magnet, horizontal convergence
	1-502-299-00	Speaker
	1-506-187-62	Lead, with plug
	1-514-897-00	Switch, pushbutton; AFT
	1-526-086-00	Socket, picture tube
	1-526-130-61	Cap, anode
	1-526-131-52	Cap, convergence
	1-526-144-00	Cap, lead
	1-533-087-00	Holder, fuse
	1-534-587-00	Card, power supply
	1-534-630-22	Cable, p-p
	1-536-296-00	Lug, terminal
	1-536-327-00	Lug 1L1, terminal
	1-543-040-00	Core
	8-735-~~300~~-05	Picture Tube, 330AB22

301

PR board



PP board



KV-1300E

— Serial No. 24,701 and later —

SUPPLEMENT

No. 2
May 1972

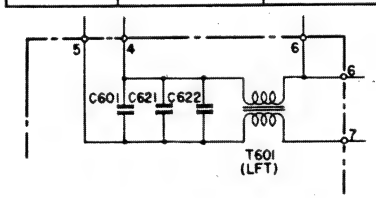
This supplement updates the service manual to include production changes starting with chassis number SCC-22A-A. File this supplement with the service manual.

Subject:
1. Production Change of PP circuit board
2. ANT circuit board for West Germany model
3. Change of deflection yoke
4. Cabinet for West Germany model

1. PRODUCTION CHANGE OF PP CIRCUIT BOARD

1-1. Netherlands, Sweden, Denmark and Finland Models

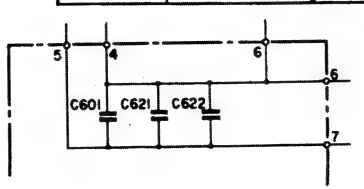
Ref. No.	~15,000	15,001~19,000	19,001~21,000	21,001~24,700	24,701 and later
T601(LFT)	○	——	○	○	——
C601	0.1μF/450V	0.1μF/450V	0.1μF/450V	0.22μF/250V	0.22μF/250V
C621	——	0.1μF/630V	——	——	——
C622	——	0.1μF/630V	0.1μF/630V	——	0.1μF/630V



Note:
1. The mark ○ in this list indicates that the component is used and the mark —— not used.
2. After serial number 24,701, two micro inductors are added. See diagrams on page 2 and 3.

1-2. Switzerland Model

Ref. No.	15,001~19,000	19,001~21,000	21,001~24,700	24,701 and later
T601(LFT)	——		——	——
C601	0.1μF/450V		0.22μF/250V	0.22μF/250V
C621	0.1μF/630V		——	——
C622	0.1μF/630V		0.1μF/630V	0.1μF/630V



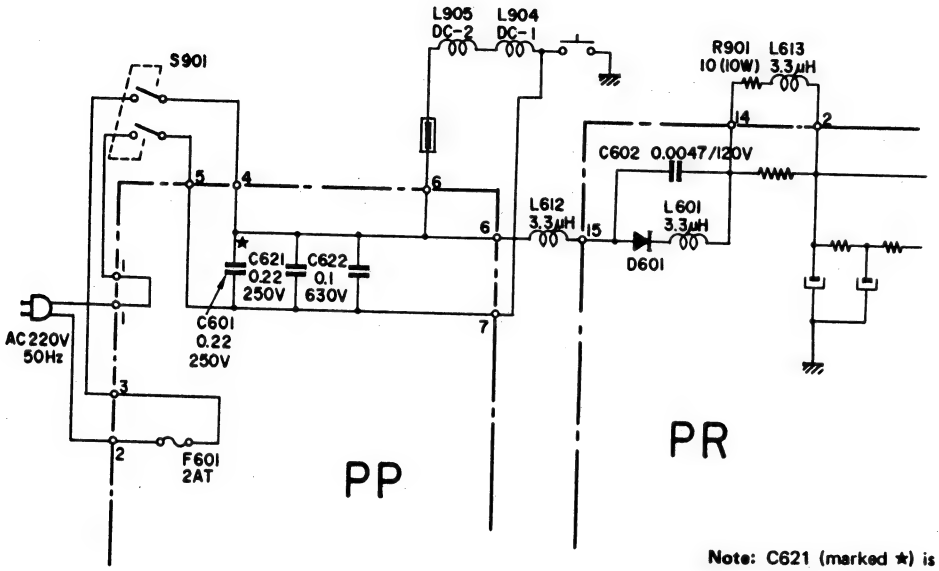
Note:
1. There is no Switzerland model between serial number 19,001 and 21,000.
2. The mark —— in this list indicates that the component is not used.
3. After serial number 24,701, two micro inductors are added. See diagrams on page 2 and 3.

West Germany Model

The set for West Germany has serial number 24,701 and later.
See diagrams.

Partial Schematic Diagram

– Serial No. 24,701 and later –



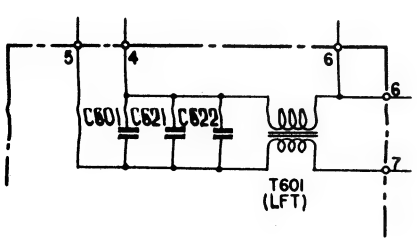
Note: C621 (marked ★) is Norway model only.

C601	1-108-745-21	0.22	±20%	250WV	mylar
★ C621	1-108-745-21	0.22	±20%	250WV	mylar
C622	1-129-739-00	0.1	±10%	630WV	film
L612	1-407-364-21	3.3μH,	micro inductor		
L613	1-407-364-21	3.3μH,	micro inductor		

Norway

Ref. No.	15,001~19,000	19,001~21,000	21,001~24,700	24,701 and later
T601(LFT)	o		o	—
C601	0.22μF/250V		0.22μF/250V	0.22μF/250V
C621	0.1μF/630V		—	0.22μF/250V
C622	0.22μF/250V		0.22μF/250V	0.1μF/630V

Note: C621 is Norway model only.



Note:

1. There is no Norway model between serial number 19,001 and 21,000.
2. The mark o in this list indicates that the component is used and the mark — not used.
3. After serial number 24,701, two micro inductors are added. See diagrams on page 2 and 3.

ANT CIRCUIT BOARD FOR WEST GERMANY MODEL

ANT circuit board for West Germany model is the same with Norway model. T102 is added on the circuit board. See page 32 of *Service Manual KV-1300E (Chassis No. SCC-22A-C, Serial No. 15,001 and later).*

Parts	West Germany, Norway	Other Countries
ANT circuit board, complete	1-536-358-00	8-983-142-15
T102	1-417-040-00	omitted

CHANGE OF DEFLECTION YOKE

Deflection yoke is changed after serial number 19,001. Former deflection yoke can be replaced by the new type.

Former	New
1-451-076-11	1-451-091-00

CABINET FOR WEST GERMANY MODEL

In West Germany model, a new cabinet is used.

Parts	West Germany	Other Countries
Cabinet Ass'y	X-43065-10-0	X-43065-02-0
Rear Cover Ass'y	X-43065-09-0	X-43065-08-2

KV-1300E

AEP Model

SUPPLEMENT

No. 3
March, 1973

Subject: Electrical and Mechanical Changes

This supplement updates the service manual to include production changes on circuit and mechanical parts.
File this supplement with the service manual.

1. CHANGED PARTS LIST

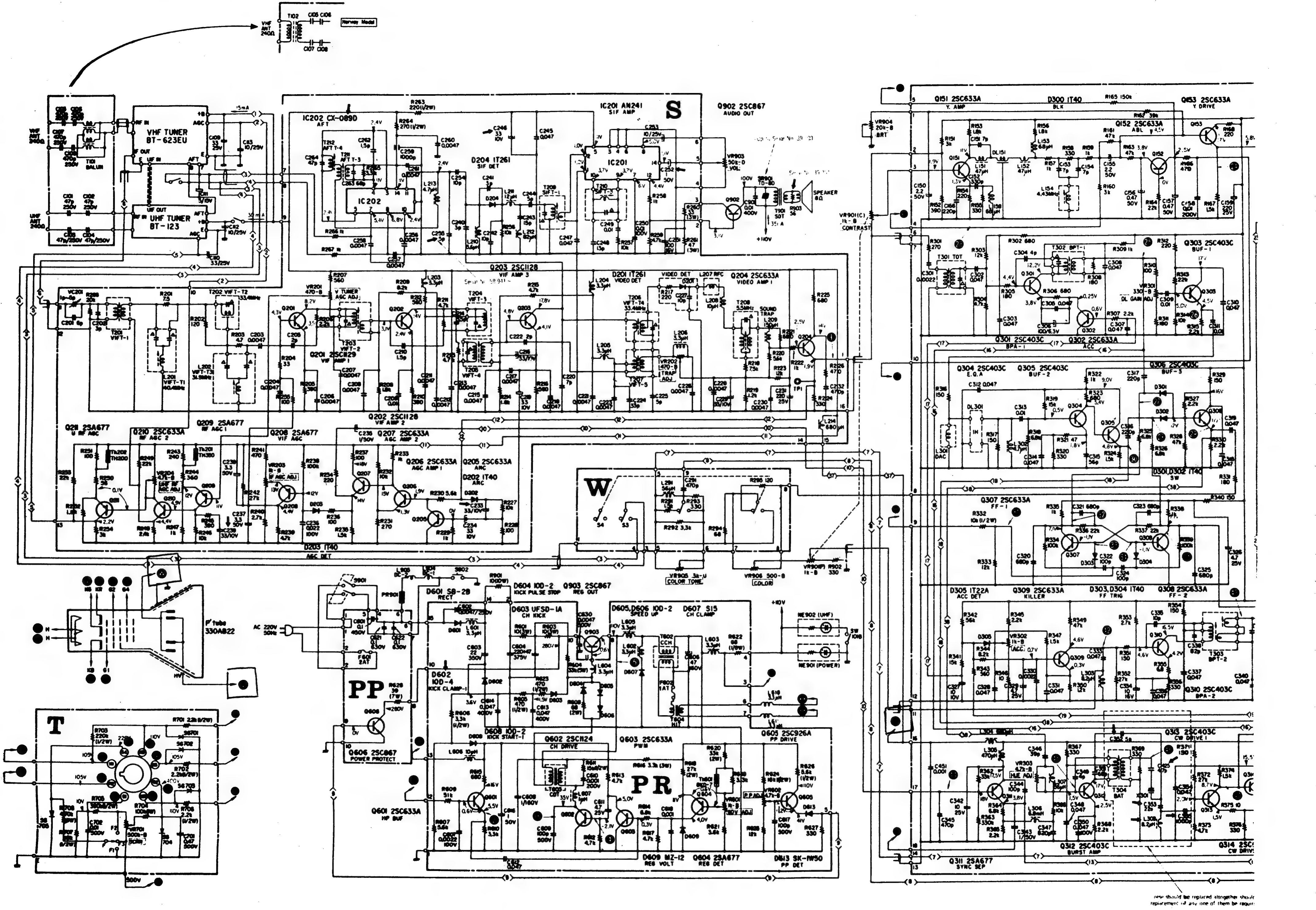
Ref. No.	Former Part Value	New Part No./ Part Value	Applicable Serial No./ Associated Circuit Board
IC202	M5134P	CX-089D	58,941 ~ , S board
D602	10D-2	10D-4	19,001 ~ , PR board
SR901	TD80	----------	39,000 ~ , Speaker circuit
L210	12μH	1-407-187-00 5.6μH	58,941 ~ , S board
L509	10μH	----------	47,701 ~ , VH board
*L308	15μH	1-407-189-00 8.2μH	19,001 ~ , C board
C233 C239 C246	33μF/16V	1-121-402-11 33μF $\pm^{50}_{10}$% 10V electrolytic	unknown S board
C252	10μF/25V	1-121-391-11 1μF $\pm^{75}_{10}$% 50V electrolytic	19,001 ~ , S board
*C352	4pF	1-102-942-11 5pF ±0.5pF 50V ceramic	19,001 ~ , C board
*C353	12pF	1-102-959-11 22pF ±5% 50V ceramic	
*C355	120pF	1-101-455-11 1000pF ±20% 50V ceramic	
C430	0.47μF/50V electrolytic	1-106-753-12 0.01μF ±10% 200V mylar	40,501 ~ , C board
*C452	----------	1-101-880-11 47pF ±5% 50V ceramic	19,001 ~ , C board

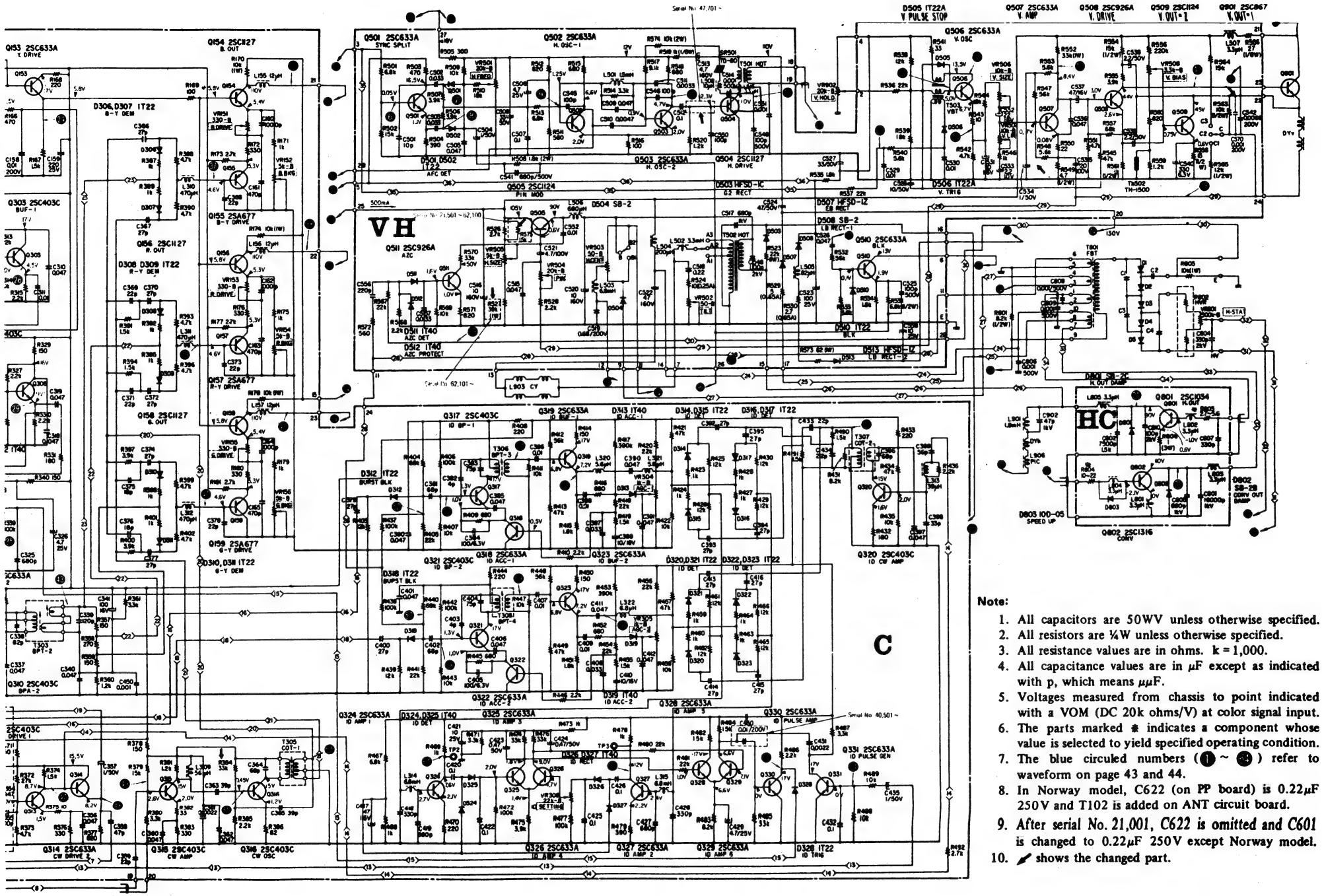
Ref. No.	Former Part Value	New Part No./ Part Value	Applicable Serial No./ Associated Circuit Board
C559	0.01μF/50V	----------	19,001 ~ , VH board
C570	----------	1-105-741-12 0.001μF±10% 200V mylar	
*R370	270 ohm	----------	19,001 ~ , C board
R384	39k ohm	1-244-709-11 33k ohm	
R527	----------	1-244-701-11 15k ohm	23,501 ~ 62,100, VH board
°R527	27k ohm	1-206-111-11 39k ohm 1W metal oxide	62,101 ~ , VH board
°R575	15k ohm	----------	
R903	----------	1-244-643-11 56 ohm	39,001 ~ , speaker circuit

Note: All resistance values are in 5% ¼W carbon type unless otherwise indicated.
The parts marked * or ° should be replaced altogether should replacement of any one of them be required.

SONY
SERVICE MANUAL

Serial No. 19,001~ Chassis No. SCC-22A-A, SCC-22A-B, SCC-22A-C



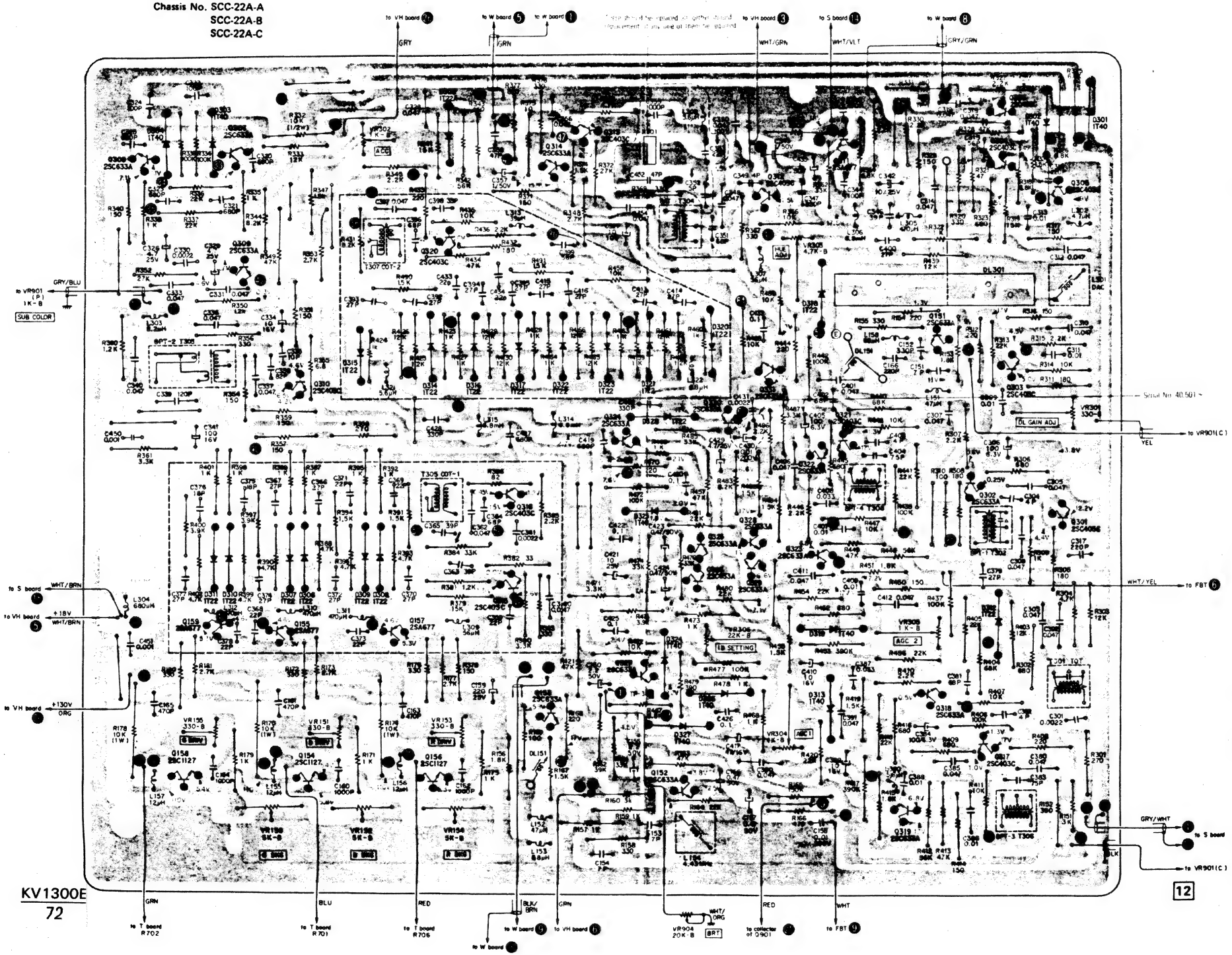


Note:

1. All capacitors are 50WV unless otherwise specified.
2. All resistors are ¼W unless otherwise specified.
3. All resistance values are in ohms. k = 1,000.
4. All capacitance values are in μF except as indicated with p, which means μμF.
5. Voltages measured from chassis to point indicated with a VOM (DC 20k ohms/V) at color signal input.
6. The parts marked ✱ indicates a component whose value is selected to yield specified operating condition.
7. The blue circuled numbers (① ~ ⑮) refer to waveform on page 43 and 44.
8. In Norway model, C622 (on PP board) is 0.22μF 250V and T102 is added on ANT circuit board.
9. After serial No. 21,001, *C622 is omitted and C601* is changed to 0.22μF 250V except Norway model.
10. ✎ shows the changed part.

MOUNTING DIAGRAM – C Board –

Serial No. 19,001~
Chassis No. SCC-22A-A
SCC-22A-B
SCC-22A-C

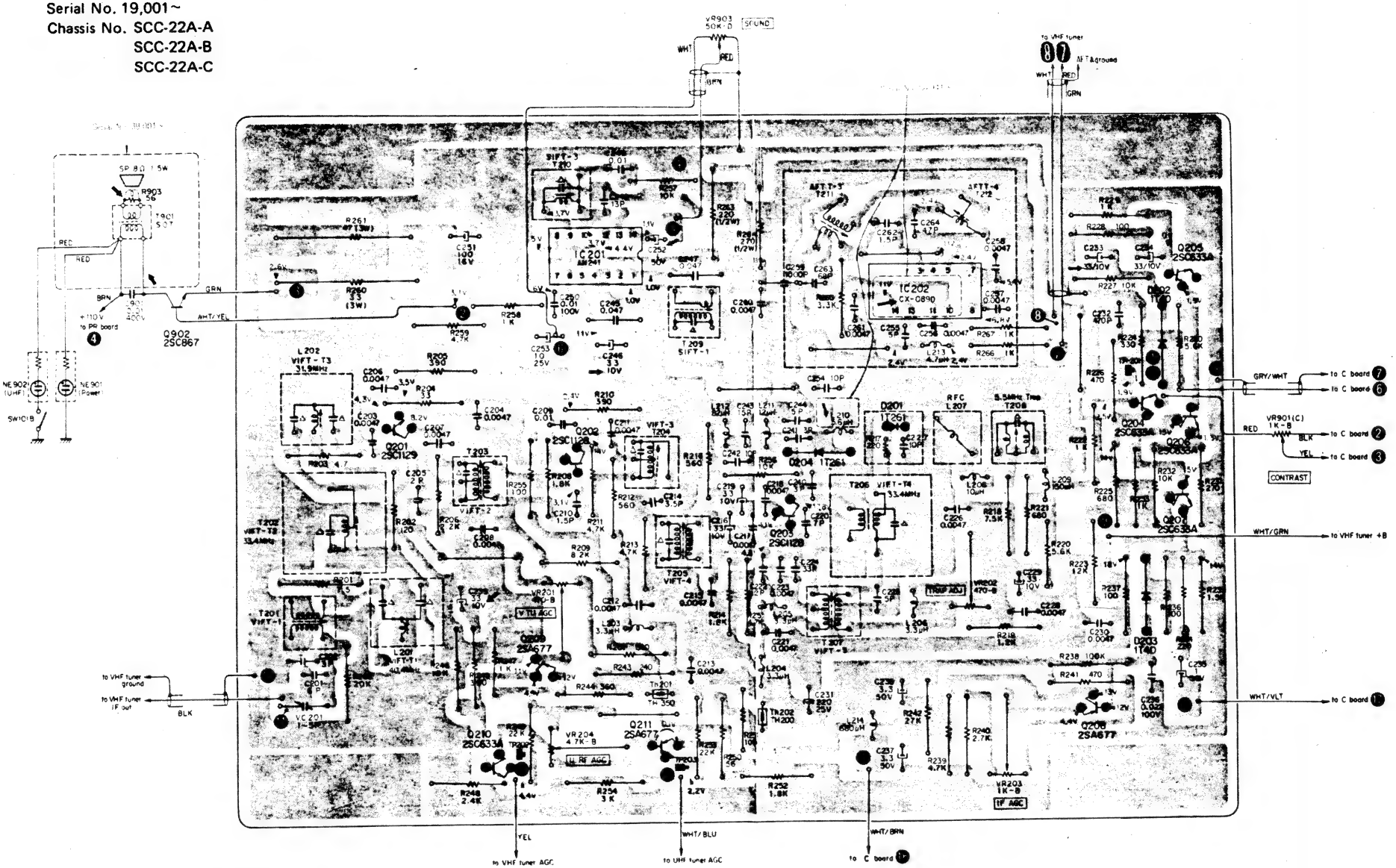


Parts Location

Q, IC	D	ADJ.
Q306	D301 D302	
Q313 Q311 Q308 Q307 Q314 Q304 Q305 Q312	D305 D304 D303	VR302
		T304
Q320		T307 VR303
Q309		
	D318	L301
Q151	D314 D315 D316	
Q303 Q331 Q310	D317 D322 D323 D321 D320	T303
Q330	D328	VR301
Q324 Q321 Q322		
Q302 Q316		T308 T305
Q301	D325	T302
Q328 Q325 Q323 Q329 Q226 Q315	D311 D310 D307 D306 D309 D308	
Q159 Q155 Q157	D312 D319	VR305 VR306
Q327	D324	T301
Q318	D326	
Q153	D313 D327	VR155 VR151 VR153
Q317		VR304
Q158 Q154 Q156 Q152 Q319		VR156 VR152 VR154 T306 L154

MOUNTING DIAGRAM — S Board —

Serial No. 19,001~
Chassis No. SCC-22A-A
SCC-22A-B
SCC-22A-C

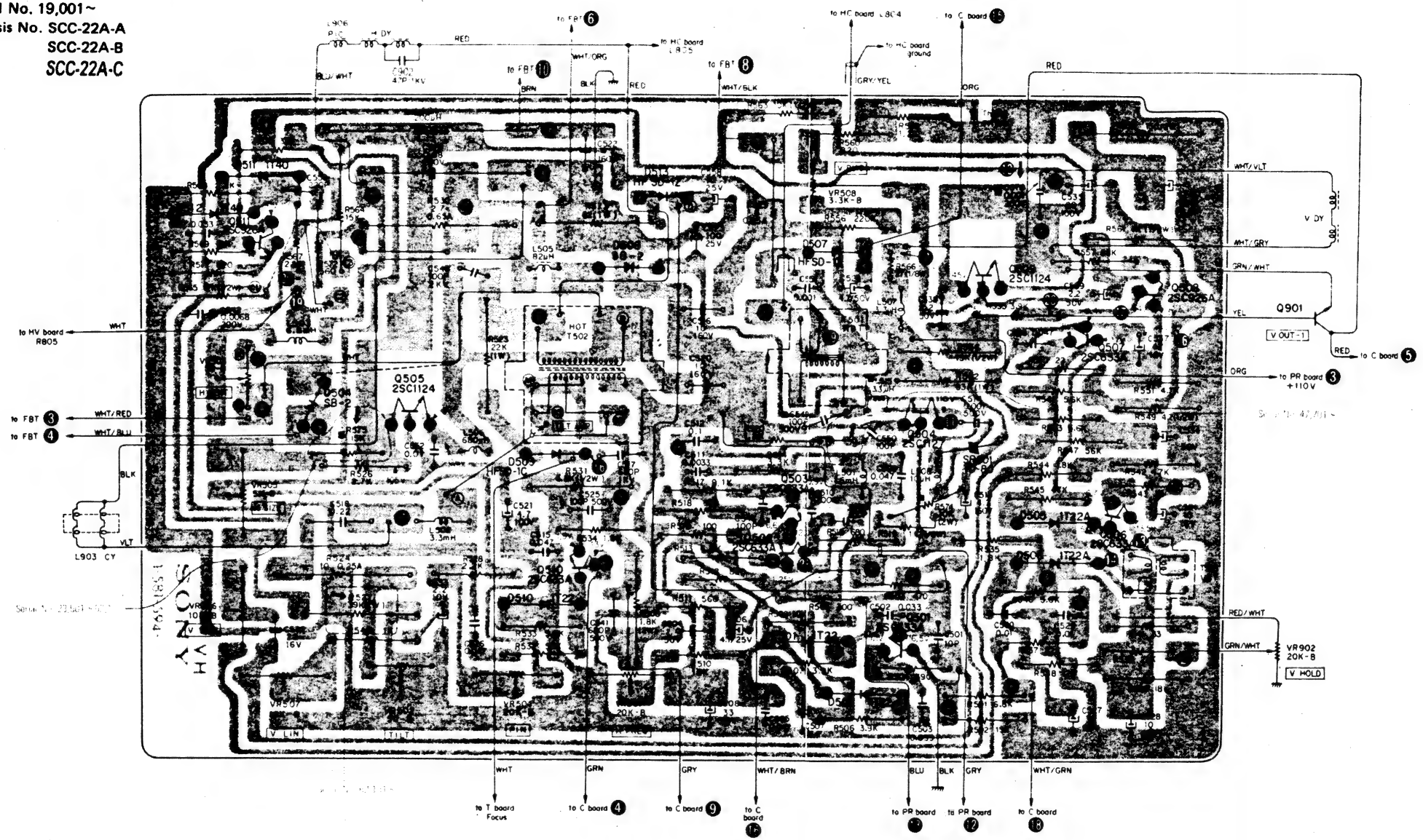


Parts Location

Q, IC	Q201 Q202 IC201 Q209 Q210 Q211 Q203 IC202 Q208 Q204 Q205 Q206 Q207
D	D204 D201 D202 D203
ADJ.	L202 T201 T202 VC201 L201 T203 T210 VR201 VR204 T204 T205 T209 T211 T207 T206 T212 VR202 T208 VR203

MOUNTING DIAGRAM – VH Board –

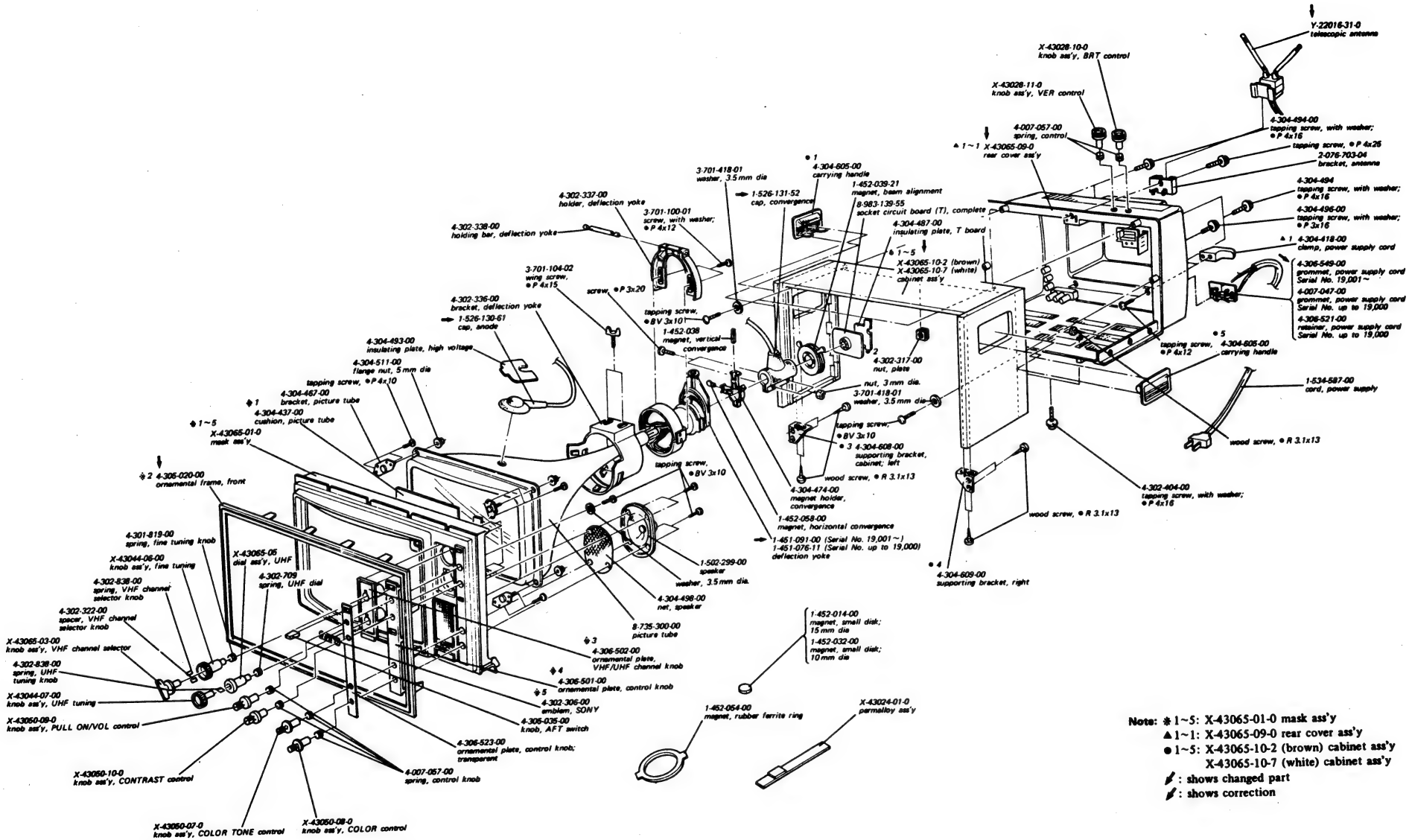
Serial No. 19,001~
Chassis No. SCC-22A-A
SCC-22A-B
SCC-22A-C



Parts Location

Q	Q511 Q505 Q510 Q503 Q502 Q504 Q501 Q509 Q507 Q506 Q508
D	D512 D511 D504 D503 D510 D508 D513 D507 D501 D502 D505 D506
ADJ	VR503 VR505 VR506 VR507 VR502 VR504 VR501 VR508

EXPLODED VIEWS (1)



Note: ◆1~5: X-43065-01-0 mask ass'y
▲1~1: X-43065-09-0 rear cover ass'y
●1~5: X-43065-10-2 (brown) cabinet ass'y
X-43065-10-7 (white) cabinet ass'y
: shows changed part
: shows correction

TRINITRON®
COLOUR TV

KV-1300E

West Germany Model

SUPPLEMENT

No. 4
April 1973

Subject: Electrical and Mechanical Changes

This supplement updates the service manual to include production changes covering **Serial No. 69,249 ~ 71,249.**
File this supplement with the service manual.

1. INTRODUCTION

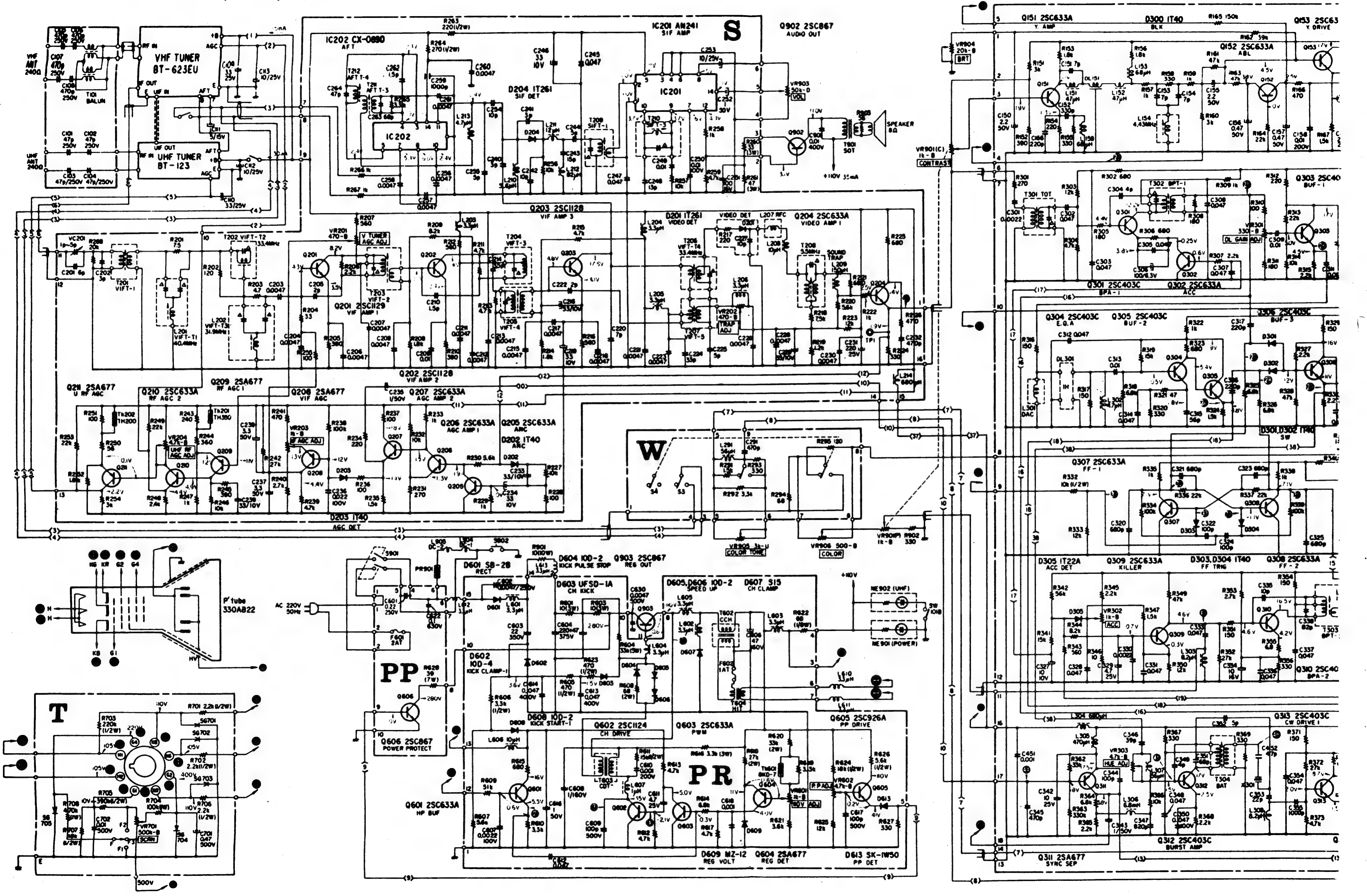
The VH circuit board and deflection yoke have been changed in addition to some other electrical and mechanical changes.

2. CHANGED PARTS LIST

(Serial No. 69,249 ~ 71,249)

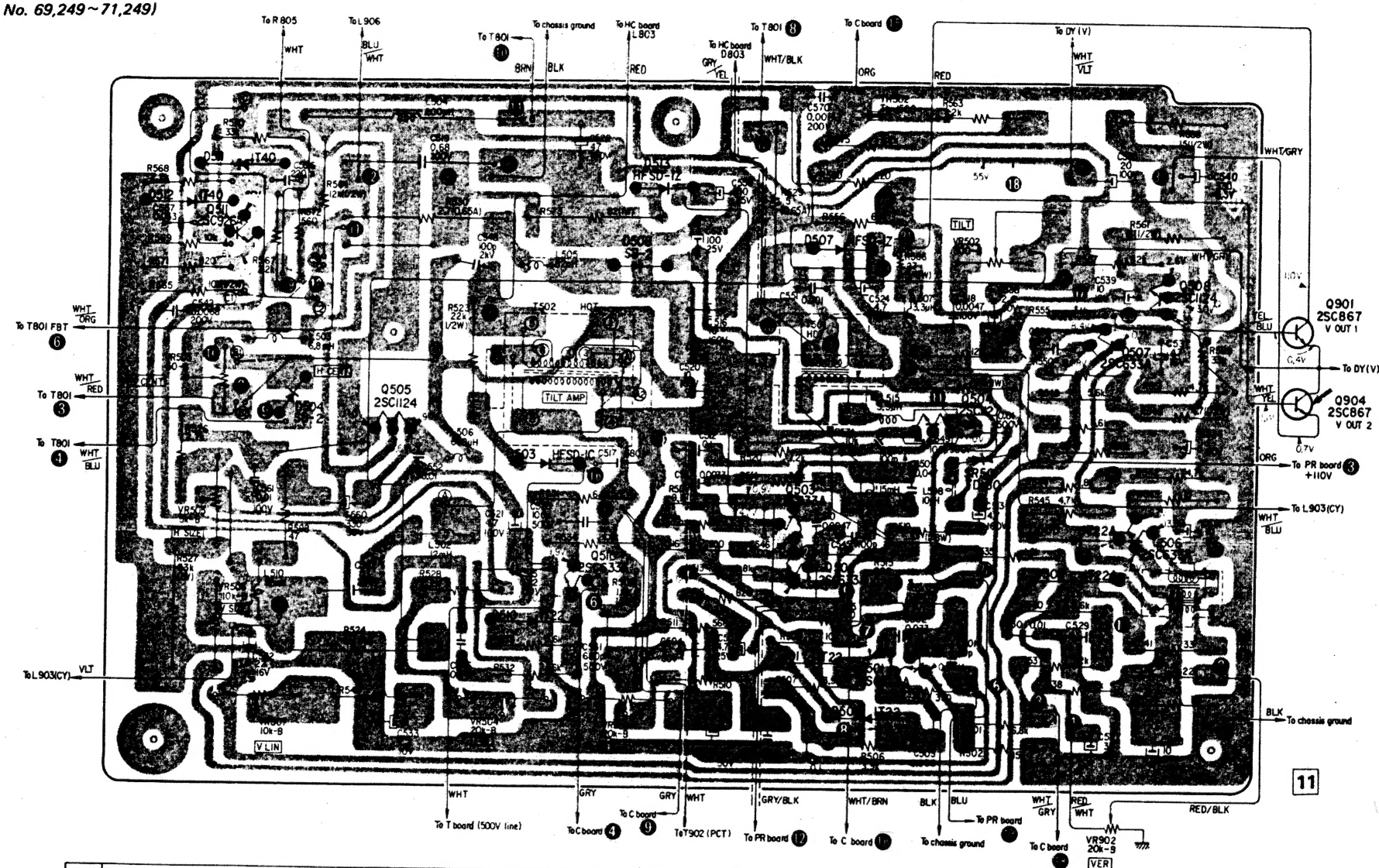
Ref. No.	*Former Part Value*	*New Part No./Part Value*
VH board	8-983-139-35	8-983-781-15
Q904	----------	2SC867
L907	----------	1-451-096-00 coil, phase adjustment; PAC
T902	----------	1-421-301-00 transformer, pincushion; PCT
C921	----------	1-108-632-11 0.33μF ±10% 100V mylar
R921	----------	1-244-673-11 1kΩ ±5% ¼W carbon
R922	----------	1-244-673-11 1kΩ ±5% ¼W carbon
R923	----------	1-244-703-11 18kΩ ±5% ¼W carbon
DY	1-451-076-11	1-451-096-00 deflection yoke

(Serial No. 69,249~71,249)



MOUNTING DIAGRAM – VH Board –

(Serial No. 69,249~71,249)

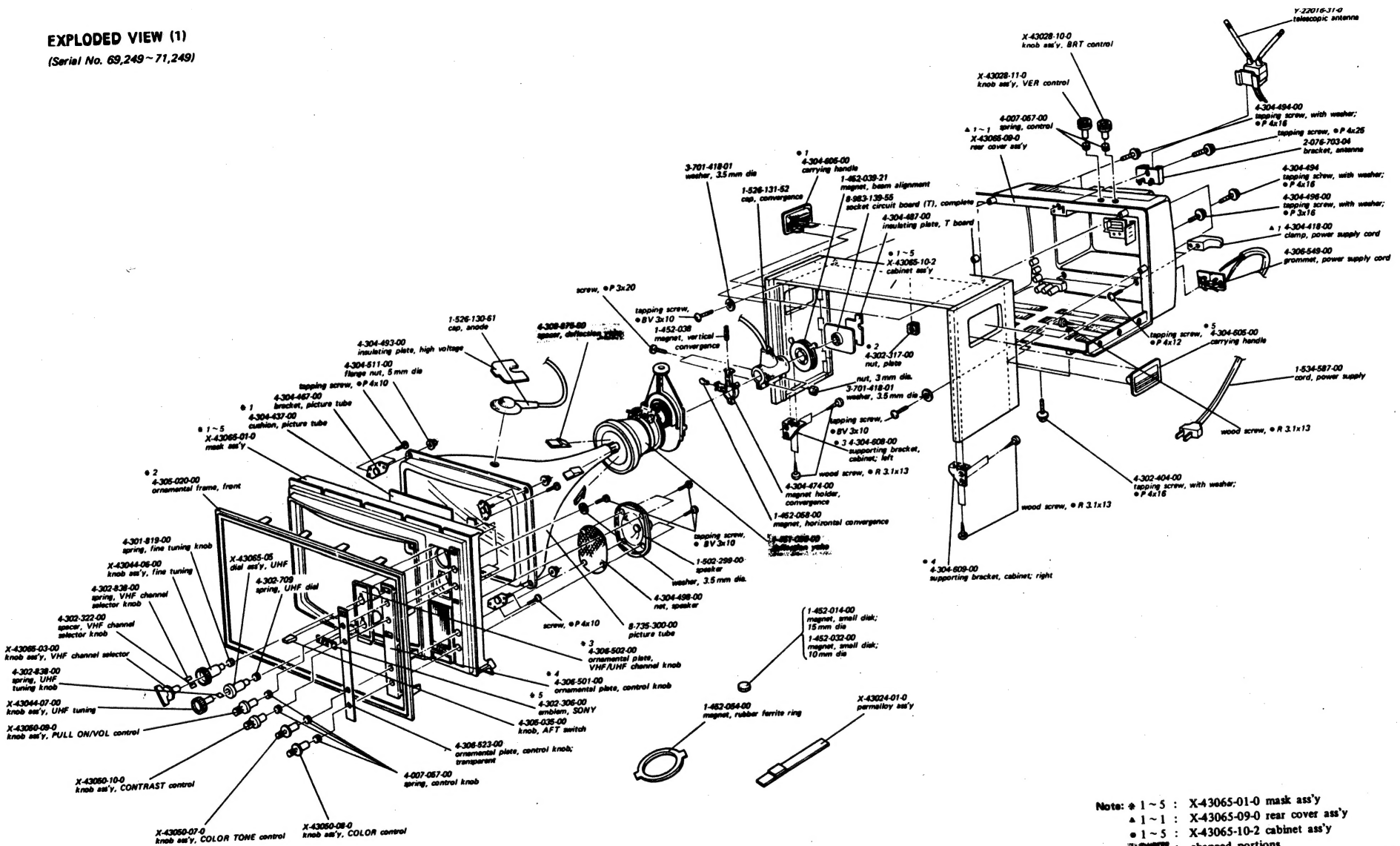


Q	Q505 Q510 Q503 Q502 Q504 Q501 Q507 Q508 Q506 Q901 Q904
D	D512 D511 D504 D513 D508 D503 D510 D507 D501 D502 D505 D506
ADJ.	VR503 VR505 VR506 VR507 VR504 VR501 VR502 VR902

Note: 1. The parts marked ■ are mounted on the conductor side.
2. ✓ shows the changed portion.

EXPLODED VIEW (1)

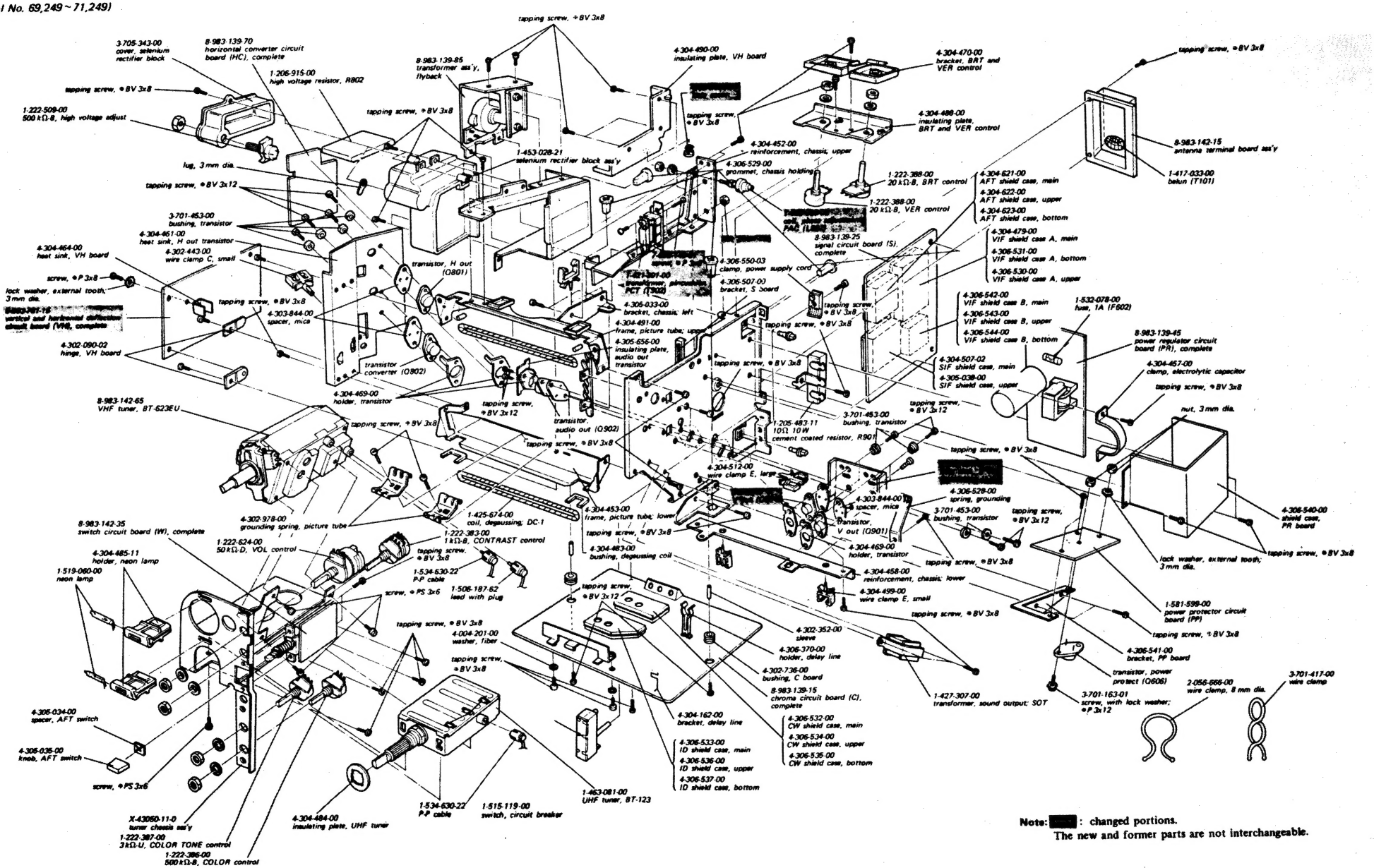
(Serial No. 69,249 ~ 71,249)



Note: ● 1 ~ 5 : X-43065-01-0 mask ass'y
▲ 1 ~ 1 : X-43065-09-0 rear cover ass'y
● 1 ~ 5 : X-43065-10-2 cabinet ass'y
: changed portions
The new and former parts are not interchangeable.

EXPLODED VIEW (2)

(Serial No. 69,249 ~ 71,249)



Note: ▩ : changed portions.
The new and former parts are not interchangeable.

NEW VH BOARD PARTS LIST

Ref. No.	Part No.	Description	
	SEMICONDUCTORS		
Q501		transistor	2SC633A
Q502		transistor	2SC633A
Q503		transistor	2SC633A
Q504		transistor	2SC1127
Q505		transistor	2SC1124
Q506		transistor	2SC633A
Q507		transistor	2SC633A
Q508		transistor	2SC1124
Q509		----------	
Q510		transistor	2SC633A
Q511		transistor	2SC926A
D501		diode	1T22
D502		diode	1T22
D503		diode	HFSD-1C
D504		diode	SB-2
D505		diode	1T22A
D506		diode	1T22A
D507		diode	HFSD-1Z
D508		diode	SB-2
D509		----------	
D510		diode	1T22
D511		diode	1T40
D512		diode	1T40
D513		diode	HFSD-1Z
SR501	1-800-032-00	varistor	TD-80
	COILS		
L501	1-407-552-00	1.5 mH, micro inductor	
L502	1-459-059-00	12 mH, dynamic convergence	
L503	1-459-074-00	6.8 mH, horizontal centering	
L504	1-407-346-00	200μH, spook choke	
L505	1-407-553-00	82μH, line choke	
L506	1-407-193-21	680μH, micro inductor	
L507	1-407-364-00	3.3μH, spook choke	
L508	1-407-190-00	10μH, micro inductor	
L509	1-407-190-00	10μH, micro inductor	
L510	1-459-059-00	12 mH, micro inductor	
L515	1-407-364-00	3.3μH, micro inductor	
T501	1-437-030-00	transformer, horizontal drive; HDT	
T502	1-439-134-00	transformer, horizontal output; HOT	
T503	1-435-008-00	transformer, vertical blocking; VBT	

Ref. No.	Part No.	Description			
	CAPACITORS				
	All the capacitors are in μF, 50 V and ceramic unless otherwise noted. p = μμF.				
C501	1-102-947-11	10p	±5%		
C502	1-108-632-11	0.033	±10%	100V	mylar
C503	1-108-632-11	0.033	±10%	100V	mylar
C504	1-121-391-11	1	$\pm^{150}_{10}$%	50V	electrolytic
C505	1-108-634-11	0.047	±10%	100V	mylar
C506	1-121-395-11	4.7	$\pm^{150}_{10}$%	25V	electrolytic
C507	1-108-638-11	0.1	±10%	100V	mylar
C508	1-121-405-11	33	$\pm^{100}_{10}$%	50V	electrolytic
C509	1-106-212-12	0.047	±5%	100V	mylar
C510	1-106-188-12	0.0047	±5%	100V	mylar
C511	1-106-184-12	0.0033	±5%	100V	mylar
C512	1-108-638-11	0.1	±10%	100V	mylar
C513	1-121-246-11	4.7	$\pm^{100}_{10}$%	160V	electrolytic
C514	1-102-038-11	0.001	$\pm^{100}_{0}$%	500V	
C515	1-105-729-13	0.22	±10%	100V	mylar
C516	1-121-708-11	10	$\pm^{100}_{10}$%	160V	electrolytic
C517	1-102-219-11	680p	±20%	1kV	
C518	1-106-212-12	0.047	±5%	100V	mylar
C519	1-108-549-11	0.68	±10%	200V	mylar
C520	1-121-921-11	10	$\pm^{100}_{10}$%	160V	electrolytic
C521	1-121-918-11	4.7	$\pm^{100}_{10}$%	100V	electrolytic
C522	1-121-919-11	47	$\pm^{100}_{10}$%	160V	electrolytic
C523	1-121-416-11	100	$\pm^{100}_{10}$%	25V	electrolytic
C524	1-121-396-11	4.7	$\pm^{150}_{10}$%	50V	electrolytic
C525	1-101-810-11	100p	±5%	500V	
C526	1-108-634-11	0.047	±10%	100V	mylar
C527	1-121-405-11	33	$\pm^{100}_{10}$%	50V	electrolytic
C528	1-121-738-11	10	$\pm^{100}_{10}$%	50V	electrolytic
C529	1-108-626-11	0.01	±10%	100V	mylar
C530	1-108-626-11	0.01	±10%	100V	mylar
C531	1-131-158-11	10	±20%	16V	electrolytic
C532	1-121-479-11	22	$\pm^{100}_{10}$%	16V	electrolytic
C533	1-127-024-11	2.2	±20%	10V	electrolytic (alox)
C534	1-121-391-11	1	$\pm^{150}_{10}$%	50V	electrolytic
C535	1-121-917-11	20	±20%	100V	electrolytic
C536	1-101-006-11	0.047	$\pm^{100}_{0}$%		
C537	1-121-409-11	47	$\pm^{100}_{10}$%	16V	electrolytic
C538	1-121-450-11	2.2	$\pm^{150}_{10}$%	50V	electrolytic
C539	1-131-158-11	10	±20%	16V	tantalum
C540	1-121-751-11	330	$\pm^{100}_{10}$%	6.3V	electrolytic
C541	1-102-002-11	680p	±10%	500V	
C542	1-105-751-12	0.0068	±10%	200V	mylar
C543		----------			
C544		----------			
C545	1-102-973-11	100p	±5%		
C546	1-102-973-11	100p	±5%		
C547		----------			
C548	1-102-153-11	100p	±20%	2kV	
C549	1-101-810-11	100p	±5%	500V	
C550	1-102-973-11	100p	±5%		
C551	1-102-074-11	0.001	±10%		
C552	1-101-004-11	0.01	$\pm^{100}_{0}$%		
C553		----------			
C554		----------			
C555		----------			
C556	1-102-978-11	220p	±5%		
C557	1-108-632-11	0.033	±10%	100V	mylar
C558	1-121-398-11	10	$\pm^{100}_{10}$%	25V	electrolytic
C559	1-101-004-11	0.01	$\pm^{100}_{0}$%		
C560	1-121-656-11	330	$\pm^{50}_{10}$%	50V	electrolytic
C561	1-105-713-12	0.01	±10%	100V	mylar
C562	1-108-704-11	0.1	±10%	200V	mylar
	RESISTORS				
	All the resistors are in ohms, ±5%, ¼W and carbon unless otherwise noted. k = 1,000 ohms.				
R501	1-244-693-11	6.8k			
R502	1-244-701-11	15k			
R503	1-244-665-11	470			
R504	1-244-663-11	390			
R505	1-244-660-11	300			
R506	1-244-687-11	3.9k			
R507	1-244-687-11	3.9k			
R508	1-206-017-11	1.8k		2W	metal oxide
R509	1-244-697-11	10k			
R510	1-244-703-11	18k			
R511	1-244-667-11	560			
R512	1-244-671-11	820			
R513	1-244-693-11	6.8k			
R514	1-244-685-11	3.3k			
R515	1-244-669-11	680			
R516	1-244-649-11	100			
R517	1-244-696-11	9.1k			
R518	1-244-669-11	680			
R519	1-211-451-11	1k		¼W	
R520	1-244-675-11	1.2k			
R521		----------			
R522		----------			
R523	1-202-792-11	22k		1W	composition
R524	1-206-145-11	68		3W	metal oxide
R525		----------			
R526	1-244-683-11	2.7k			
R527	1-206-110-11	33		1W	metal oxide
R528	1-244-681-11	2.2k			
R529	1-207-241-11	5		0.65A	fuse
R530	1-207-982-11	2.7		0.65A	fuse
R531	1-244-893-11	6.8k		½W	
R532	1-244-715-11	56k			
R533	1-244-691-11	5.6k			
R534	1-244-679-11	1.8k			
R535	1-244-679-11	1.8k			
R536	1-244-705-11	22k			
R537	1-244-705-11	22k			
R538	1-244-699-11	12k			
R539	1-244-703-11	18k			
R540	1-244-691-11	5.6k			
R541	1-244-637-11	33			
R542	1-244-689-11	4.7k			
R543	1-244-625-11	10			
R544	1-244-679-11	1.8k			
R545	1-244-713-11	47k			
R546	1-244-673-11	1k			
R547	1-244-715-11	56k			
R548	1-244-691-11	5.6k			
R549	1-207-471-11	4.7		½W	wirewound
R550	1-244-633-11	22			
R551	1-244-689-11	4.7k			
R552	1-202-794-11	33k		1W	composition
R553	1-244-691-11	5.6k			
R554	1-244-899-11	12k		½W	
R555	1-244-673-11	1k			
R556	1-244-717-11	68k			
R557	1-244-719-11	82k			
R558		----------			
R559		----------			
R560	1-244-657-11	220			
R561	1-244-873-11	1k		½W	
R562		----------			
R563	1-244-675-11	1.2k			
R564	1-244-899-11	12k		½W	
R565	1-244-897-11	10k		½W	
R566	1-211-932-11	27		⅛W	
R567	1-244-705-11	22k			
R568	1-244-681-11	2.2k			
R569	1-244-697-11	10k			
R570	1-244-709-11	33k			
R571	1-244-671-11	820			
R572	1-244-667-11	560			
R573	1-206-080-11	82		1W	metal oxide
R574	1-206-688-11	10k		2W	metal oxide
R575	1-244-675-11	1.2k			
R598	1-244-641-11	47			
R599	1-244-709-11	33k		½W	
VR501	1-222-725-00	20k-B, adjustable (H FREQ control)			
VR502	1-223-019-00	300-B, adjustable (TILT control)			
VR503	1-223-017-00	50-B, adjustable (H CENT control)			
VR504	1-222-725-00	20k-B, adjustable (PIN control)			
VR505	1-222-344-00	5k-B, adjustable (H SIZE control)			
VR506	1-222-512-00	10k-B, adjustable (V SIZE control)			
VR507	1-222-512-00	10k-B, adjustable (V LIN control)			